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The Study of the Patient as a Whole as Training for Medical Practice*

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The practice of medicine has been described by Marchand in the following words: "Seek truth. Discover causes. Learn how they disturb life and how order is reestablished. By science and persuasion preserve men. By science, gentleness and firmness combat death and reduce suffering. Guide, encourage and console in a brotherly and tolerant spirit. This is medicine." In these few words, the science and the art of medicine are happily blended. The methods of science are first invoked, but with the phrase "by science and persuasion preserve men" the transition is made, the human side of medical practice emerges and the relationship of doctor and patient is recognized. The practitioner of medicine must know his patient as an individual if he is to guide, encourage and console in a brotherly and tolerant spirit. The better he knows him, the greater will be his success in combatting death and reducing suffering.

With this concept of medical practice in mind, I wish to discuss the advantages of home visits by medical students as bearing especially on the study of the patient as a whole, which includes consideration of his personality, environment and social setting, with the expectation that others will discuss the relation of home visits to instruction in public health and in the preventive aspects of medicine.

The art of medicine may be defined as the application of the science of medicine to the needs of the individual. Students can be trained in this art. The patient must be understood as an individual and his specific needs must be discerned, if medical science is to be applied with maximum effectiveness. This is one of the fundamental principles of medical practice.

Medical practice requires an understanding of the motives and circumstances that bring the patient to the doctor. Except in cases of acute serious disease or injury, patients usually seek medical care because of social incapacity. The great bulk of illness, representing progressive disease or the processes of aging in their incipient stages, chronic infections and inflammations, disturbances of metabolism and of bodily functions of psychogenic origin, reveals itself to the patient as an inability to carry efficiently the responsibilities of his family, of his work or of other situations he is called on to face. It is this sense of inability

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from which comes fear or worry, uncertainty and a feeling of insecurity. The patient is primarily concerned with being restored to his accustomed place in society whether he consciously realizes it or not. For this reason an understanding of the conditions and obligations of the accustomed place in society to which each patient hopes to be restored is a requirement of medical practice. This concept should be appreciated by the medical student and should be incorporated into his attitude toward an understanding of medical practice early in his clinical training.

The interaction between the patient and his social setting is an important factor in the causation of illness and in its treatment, as there are specific social problems related to various types of disease which require consideration both in diagnosis and in treatment. A systematic study of an unselected series of medical patients admitted to the Johns Hopkins Dispensary has shown that in 65 per cent, adverse social conditions related to their illness existed, and in 35 per cent these conditions caused emotional reactions mainly responsible for their illness. It seems clear that if medical students are to understand illness and its treatment in a broad sense, they must be taught to consider the patient as a total individual and to learn to appreciate the significance of social and environmental problems as a part of medical care.

This concept has become widely recognized by medical teachers in the past few years, and various undertakings have been inaugurated in a number of our medical schools, aimed at the development of interest and skill in dealing with the patient as a total individual. Teachers of medicine or of hygiene and public health, in cooperation with medical social workers are beginning to study systematically the personal and social problems of patients, and to formulate programs of teaching. Activities in this field have recently been introduced into the curriculum of at least thirteen medical schools in this country, and various methods for their conduct have been instituted.

When any subject becomes the serious concern of teachers and is formulated into a teaching program, it begins to undergo organization and to stimulate research. The facts and ideas involved are put to a test as to their reasonableness, soundness and completeness, and the test invariably shows their shortcomings. Teachers and students begin to search for reasons and proof, for measurements or well founded estimates of values and of practicability, and curiosity is aroused. There are indications that the study of the patient as a whole is beginning to be scrutinized in this way as a field of medical education. I am convinced that these new undertakings in medical education are destined to have a useful influence on the attitude of the future doctor toward illness and on medical care in general, by developing a wider interest and a better understanding of the patient as an individual. It is the purpose, I take it, of this symposium, to exchange experiences in the teaching of the social aspects of medicine, and home visits have been utilized as a convenient mode of introducing this subject. I shall therefore give an account of the methods we have used in this field and discuss some conclusions drawn from this experience.

Our plan is to assign at least one patient to each third year student for study as a total individual during his work in the medical dispensary. A suitable

patient is selected from the new cases assigned to each student, so that he may participate in the broader study of a patient he already knows both personally and medically. A suitable patient is one who has a more or less protracted illness, requiring treatment in the medical clinic, and who lives near the hospital so that a home visit can be made conveniently. Patients living within the Eastern Health District are preferred, as this is an area of Baltimore surrounding the hospital and the adjacent School of Hygiene and Public Health populated by more than 100,000 people. The public health activities of this district are administrated by the School of Hygiene and Public Health in collaboration with the Board of Health and the health and social status of this district has been studied thoroughly.

The patient is selected by conferring with the student and with the staff member responsible for the case, and the patient is interviewed after the clinical record has been reviewed. At this interview, the patient's symptoms are reviewed and expanded. A social history is obtained, and the assets and liabilities in the circumstances of the patient's life in relation to his illness are determined. The patient is given an opportunity to relate his social and emotional disturbances and at the same time characteristics of personality are noted. Immediately after the interview, it is fully described by dictation, thereby providing a record for future study. This interview is usually conducted in an office outside of the clinic where an intimate doctor-patient relationship is easily established, and the student for practical purposes is, as a rule, not present, but the record is reviewed with him shortly thereafter. Plans for a home visit with the student are made at the time of the interview.

The value of the study of the clinical findings and especially of the interview prior to a home visit should be emphasized, as they serve to individualize the patient, both medically and socially and to disclose problems for further investigation at the time of the visit. Following the visit, any social, emotional, hygienic or public health problems related to the present illness or future health of the patient or of his family are given consideration by the student and are subjected to further study.

After the study has progressed sufficiently to give an understanding of the patient as a whole, the patient is presented by the student at an informal weekly conference attended by all the students in the medical group, about twenty-five in number, and covering the whole class in three groups. The student presents the essential medical aspect of the case with the patient present, and after a brief discussion with the patient in order to bring out his personality, the patient is asked to withdraw. Then his social and personal problems are described and discussed. Emphasis is placed on the relation of these problems to the patient's illness and its treatment, and consideration is given to the problems of health and hygiene which the patient may present or suggest.

These conferences are attended by the public health administrator of the Eastern Health District, by medical social workers, and, frequently, by staff members of outside social agencies interested in the patient presented. The psychiatrist conducting a mental hygiene study in the Eastern Health District has attended constantly during the past two years, and visitors from the Board

of Health, from the School of Hygiene and from other departments of the medical school have attended and participated in discussions.

There are eight conferences for each group, and it is customary to present to each group patients illustrating the social aspects of circulatory disease, pulmonary tuberculosis, psychoneuroses and syphilis, while patients with diabetes, epilepsy or other chronic diseases have been presented. Cases have also presented opportunities to discuss the relation of illness to industrial employment, the problem of permanent invalidism, the methods of utilizing the resources of various public and private health and welfare organizations, and other such topics.

The study of the patient as a whole frequently leads the student to a consideration of problems of public health and of mental hygiene, or demonstrates the significance of adverse social conditions in the diagnosis and in the treatment of illness. The four following cases are cited as they illustrate, in turn, problems of public health, of mental hygiene, of diagnosis and of treatment which evolved from the study of patients as total individuals.

CASE I.—The first case is that of M. B., a 69 year old colored woman, complaining of being "rundown" and of having a productive cough, profuse sweats, shortness of breath, fatigue and loss of weight. These symptoms had been present for about a year, and her examination revealed an advanced pulmonary tuberculosis with many tubercle bacilli in her sputum.

During the home visit with the student and with the public health nurse, the hygiene of home care was reviewed with the patient and plans for hospitalization were made. On questioning the patient at this time it was discovered that during the past year, when she undoubtedly had open infectious pulmonary tuberculosis, she had been employed as a domestic servant in a household where she cared for a 9 year old child, who had, she said, developed a cough. About three months before admission she had left this position, but had obtained another where for about six weeks she had cared for six children under 14 years of age. On further inquiry it was learned that the first position was with a family living in one of the most attractive suburbs of Baltimore. The seriousness of the situation made a strong impression on the student as he knew the family. Both families with whom the patient had lived, resided outside of the limits of Baltimore, and were, therefore, beyond the jurisdiction of the City Board of Health. It was, therefore, necessary to report the situation to the State Board of Health which was done by the health officer of the Eastern Health District, where the patient lived, in order to have the children who had been exposed to tuberculosis placed under medical observation.

It is readily understood how many problems related to the control of tuberculosis the study of this patient revealed.

CASE II.—The second case, illustrating a problem of mental hygiene, was a 16 year old high school girl who was brought to the dispensary by her mother because of headaches, drowsiness and pains in the back. Examinations in the medical, ophthalmologic and orthopedic clinics failed to reveal any cause for her symptoms.

On interviewing the patient, she was found to be a responsive, attractive girl, who talked well, and was inclined to smile through her tears, which began to flow when her school work was discussed. She was in the second year of high school, and was unable to do as well in her studies as her older sister had done. She was being constantly urged by her father to excel at school, and when she brought home a poor report, her father was annoyed and told her not to make excuses. She remarked, "This got me down and then I was taken sick." Her mother reported that the patient was much bothered by her school work, had become irritable, had developed friction with her sister and with her father. She had developed some moodiness, occasionally sat quietly without speaking for some time, was emotionally unstable and had exuberance of spirits at times.

In order to gain further knowledge of the patient's school record, a conference was held at the school with the teacher in charge of the patient's work and the school nurse, and it was learned that the patient would undoubtedly be dropped from the rolls of the city schools after the mid-year examinations. This course of events seemed to be filled with much danger to the mental health of the patient. An analysis of the school record indicated that the patient would probably carry satisfactorily the course in the vocational high school. After a conference with the principal of this school and a full discussion of the situation with the patient's father, the transfer was effected before examination time, which proved entirely successful in relieving the patient of all her symptoms and of her unhappiness. The patient was followed for more than a year, and not only did she become an active, interested and successful student, but she reported that the entire family situation had changed. She and her father had become good friends; she no longer quarrelled with her sister, and her mother's health was much better than formerly.

The emotional disturbances interfering with success in carrying school work produced a vicious circle which seemed to be leading this girl into a state of chronic invalidism or, perhaps, a psychosis, and required adjustment of her family and educational difficulties for the prevention of serious consequences.

Case III.— The third case, illustrating the significance of adverse social conditions in diagnosis, is that of F. C., a 48 year old divorced woman. She had been treated in the dispensary five and again three years previous to her present admission, and the diagnosis of rheumatic heart disease with mitral stenosis, made on her first admission, had been confirmed on each subsequent admission. She had been given digitalis previously and had learned to discuss her cardiac condition fluently, but with a lack of understanding, by using the words she had learned when her case had been demonstrated as one of heart disease.

A survey of her symptoms revealed the fact that they were not those of heart failure but were clearly suggestive of a psychoneurosis. An interview revealed that her symptoms began shortly after her heart lesion was first discovered during an insurance examination and when she had marital friction leading to a divorce. She had had an unusually hard childhood in Austria and much emotional strain when she arrived in this country alone at the age of 17.

She had been in a semi-invalid state during the six years since her divorce, but with some periods of satisfying and rather strenuous work, when she had no symptoms. Further investigation, including a home visit, gave convincing evidence that in spite of a cardiac lesion, this patient's illness was entirely a psychoneurosis, and indicated that her treatment should be directed toward the emotional strain caused by a lack of family group and a feeling of insecurity, in a person reacting excessively to such strain. Her heart disease was apparently of long standing, while her illness began after she was informed of its presence, and at the time her marital difficulties reached the breaking point.

CASE IV.—The fourth case, an example of the significance of social conditions in relation to treatment, is that of J. H., a 44 year old colored man with severe diabetes and hemiplegia. Study revealed that he was in danger of diabetic coma, and that he required a carefully regulated diet and constant use of insulin. When his social history was obtained, it was found that he was destitute and without family or dependable friends, and that because of a confusion of statements, considered to be a falsification, he had been refused permanent public relief. Although a short period of hospitalization in the City Hospital was secured, he returned to the dispensary in two weeks, presenting the same problems of a permanently disabled severe diabetic, without any means of obtaining adequate medical care.

After investigating and clearing his difficulties with the relief agency, he was accepted for public relief, special funds for a diabetic diet were obtained and a source of supply of insulin was found. Self medication was successfully carried out by this patient, and he seemed to gain distinctly in understanding and intelligence during several months while under observation. The essential step in the treatment of this patient was his social adjustment.

Economic inadequacy, lack of family backing and a totally disabling physical condition combined to make the medical care of this severe diabetic a difficult problem. He showed a surprising level of intelligence after the severe symptoms of his illness were relieved, and was able to carry on his own treatment successfully.

This method of teaching is neither simple nor easy. In fact, much time and energy are required as it is difficult to coordinate all the human elements that are concerned with its successful conduct. These human elements consist of patients, students, doctors, medical social workers and representatives of public health and social agencies. It has not been possible to have every student make a complete study, but about 60 per cent of each class has done so.

This program of teaching has been combined with systematic studies of the social aspects of illness, and with problems of treatment in conjunction with the routine medical service of the hospital staff. These activities have required the full time of a physician, a social worker and a secretary constituting a small division of the department of medicine, in which efforts are being made to keep accurate records and to accumulate recorded experience as material for study, analysis and formulation.

Several points in this plan of teaching are advantageous in the training of

the doctor. The medical student takes a broad view of at least one patient in whom his interest has already been aroused by taking the history and by making the initial examination. When the student has an opportunity to see the patient in the environment of his home, the case becomes a human as well as a medical problem. For this reason, it is more deeply impressed on him and he invariably gains a lasting memory of the patient, which includes not only the individual but also the disease or disability from which he suffers. The method of teaching serves to introduce the student to phases of hygiene and public health as related to clinical medicine and to demonstrate the integration of medical practice and public health. It also serves to indicate the relation of various social agencies to medical care and the numerous factors which may need to be coordinated in considering the total health needs of an individual. Home visits with students give opportunities for discussions not only of the problems presented by the patients, but also of broader social aspects of medical care, of medical ethics and of the relation of doctor and patient.

Although each student has a limited experience in this plan of teaching, this experience comes at the beginning of his clinical training and succeeds, in many instances, in awakening an interest in the personal and social status of patients which is carried over into his work as a fourth year student. Although only a relatively few topics are considered by the students, the conferences serve to cultivate an attitude of mind and to evoke a humanitarian spirit that might otherwise be repressed during the period of early clinical training. The students have an interest in their patients as individuals, and are glad to have an opportunity to give expression to this interest. This field of study gives the student the idea that there is no sharp line of demarcation between medicine, psychiatry and public health; that the psychobiologic concept of the patient is applicable in various fields of medicine, and that the study of the patient, as a whole, has a direct bearing on medical practice.

A medical contemporary recently said to me that in our student days the ultimate aim was to follow the patient to the autopsy table. We were keen to follow him into death. Now, he said, we are facing about and are beginning to be keen to follow the patient into life. This is, I hope, a prophetic remark. There is just as much reason as ever to study the autopsy findings, and to inquire as carefully as possible why the patient died and why we could not save his life. But there is a growing appreciation that it is the patient as a member of society, faced with all the complexities of modern life, that demands first consideration by the doctor.

There is need of placing greater emphasis on the study and treatment of the patient as a whole in these days of advancing specialization, as the development of the general physician is required as a means of improving the quality and breadth of medical care. The task of resurrecting the family physician in a modern form should be a recognized obligation of medical education. He should combine the knowledge and methods of the internist, the psychiatrist, the hygienist and the medical social worker. The study of the patient as a total individual in relation to his surroundings at home and at work is essential for the education of the general physician.

Environmental Case Studies by Medical Students*

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It is well to take stock, periodically, of our progress in medical education, and to consider whether subject matter and teaching methods are well balanced and will produce the best possible physicians of the next generation. There can be no disagreement on the point of view that the chief function of American medical schools is still to prepare their students to be practitioners of medicine. Whether they are to become teachers, specialists or general practitioners, all medical students require certain basic concepts of their profession and of its function in the community. These concepts have not changed through the centuries, but communities have changed tremendously and have created new problems which affect profoundly the physical, mental and spiritual condition of the people.

The remarkable advances made in the more exact sciences—physics, chemistry and biology—have not been accompanied by equal advances in the less exact sciences—sociology, economics and government. Civilization is out of balance. There is need not only for more intensive research in the social sciences but also for more intelligent application of these sciences to our use. This is as true in the teaching and practice of medicine as in other fields of human activity, and leadership rests with those who determine the course of study in our medical schools. If the physician of the future is to fulfill his obligations to the community, as well as to his patients, his general and professional education must prepare him for it.

It has been emphasized frequently during the past few years that the teaching of medicine in the wards and outpatient services of hospitals fails to give the student an adequate picture of the background of his patients which is so important in understanding the environmental and psychologic factors associated with disease. This fact needs only to be stated to be appreciated. When one recognizes that patients coming to the outpatient service of a hospital dress in their best clothes in order to make a respectable appearance, and that many patients who are seen only when they are lying between clean, white sheets in the hospital ward are enjoying a luxury which they do not have at home, it is obvious that the clinician, intern and medical student are placed at a disadvantage in obtaining a complete picture of the hospital patient as a sick personality.

It is particularly among the poorer and more ignorant patients that medical students obtain their education. Most medical students come from homes of culture and a reasonable degree of economic security, and many of them have never come into contact with the slums of cities or the most poverty stricken

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areas of rural communities. It is difficult for them to understand the financial and social problems which are the every day concern of the people who live in these areas. And yet it is largely because of the problems faced by these people that they often show the more advanced stages of disease and are considered the best teaching material.

It is not only the patients of the lower social and economic strata whose background is important to the physician. In the wealthy and intelligent, symptoms are often more obscure and the psychic factors of disease more pronounced. If the physician is to practice successfully among this group he must penetrate the background which is often not apparent in hospital or office observation.

At the same time that the teaching of medicine has come to employ more exact methods of examination, therapy has more and more limited the use of drugs and has emphasized the importance of physical and mental rest in the recovery of the patient. This has made it all the more necessary to understand the conditions outside the hospital under which therapy can be continued after the patient is discharged or while he is attending the outpatient service.

The remarkable development of medical social service, particularly in connection with teaching hospitals, has aided greatly in understanding the background of patients and in facilitating their after-care, but too often the physician and medical student participate in this phase of treatment only through the information furnished by the social worker and not by their own observation.

A number of plans for the participation of the medical student in dealing with the personality and environment of the patient have been employed in some of the medical schools of the country. These plans have employed three general methods.

The first method is that in which the student is assigned for a period of several weeks to a practitioner in the community who takes him on home calls and initiates him into the technique of private practice. This method has the advantage of bringing the student into close contact with the private practice of medicine, but has certain important limitations. It require a large number of practitioners, who necessarily vary widely in point of view and teaching ability. The instruction is, therefore, likely to be incompetent in some cases and may even be detrimental to the student. Furthermore, there is no opportunity for cooperation by medical social workers who are trained to study and interpret the problems of the community.

The second method is that in which hospital patients assigned to students are studied in their home environments by medical social workers and are discussed in seminars with the clinical staff and the students. This method has the advantage of an expert study of the background of the patient by a medical social worker, but it does not give the student the experience of going out into the community and studying the problem at first hand.

The third method is that in which the student himself studies the home environment and problems of the patient under the guidance of a medical instructor and a social worker, makes contact with the community agencies

which can assist him, and attempts to formulate a practical plan for the solution of the patient's problems. This method appears to have the greatest educational value, as it is similar to the case method of studying patients in the hospital.

THE DEVELOPMENT OF ENVIRONMENTAL CASE STUDIES IN THE VANDERBILT UNIVERSITY SCHOOL OF MEDICINE

This phase of teaching at Vanderbilt has been called "environmental case studies" in order to emphasize environment in its broadest sense as a factor in the development of disease. Although the personality of the patient is of importance, it is his environment—physical, social, economic, occupational and recreational—which is not apparent when he is seen as a hospital patient, and it is the impact of his environment on his personality which has been associated with the development of his disease and which often will determine his ability to maintain his health in the future.

The teaching is conducted by the Department of Preventive Medicine and Public Health but involves close cooperation with the clinical and social service departments of the medical school and hospital. It grew out of the experience gained in combined clinics between the Department of Medicine and the Department of Preventive Medicine and Public Health for third and fourth year students. Several such clinics are held each year on diseases such as typhoid fever, malaria or lead poisoning. The patient to be presented at these clinics is a ward patient assigned to a third year student during his clerkship. After studying the clinical aspects of the case the student enlists the cooperation of a member of the Department of Preventive Medicine and Public Health in studying the environment of the patient to determine, if possible, the source of the disease and the means of preventing it in the future. The student and instructor investigate the home or occupational environment, search for the probable source of the disease and study the incidence and distribution of the disease in the community. This investigation is conducted over a period of several days during the free time of the student and is considered part of his clerkship service. The information obtained is presented at the regular weekly clinic in medicine attended by the third and fourth year students. The professor of medicine conducts the first half of the hour during which the student presents the clinical aspects of the case. The instructor in preventive medicine and public health conducts the second half of the hour in which the student presents the results of his epidemiologic investigation.

The success of these combined clinics suggested the wider application of the method as part of the course in preventive medicine and public health given to fourth year students. The first environmental case studies in this course were made in 1932.

The Vanderbilt University Hospital has a division of medical social service under the direction of Miss Elizabeth Nairn and consisting of a staff of eight medical social workers. The cases are selected from the wards or outpatient service by the Social Service Division as being particularly appropriate for study by the students. This requires preliminary study by the social workers. A summary of the case is given to the member of the Department of Preventive

medicine and Public Health who is in charge of this phase of instruction, and after he has approved the case, it is assigned for study. For the first two years each case was assigned to one student, but since that time two students have shared the study of each case. This has proved to be more satisfactory because it requires less time of each student, creates greater interest, and enables more students to receive this type of instruction. From ten to fifteen cases have been selected each year, so that about one-half of each fourth year class participates. Students are selected who possess motor cars so that they can get about the city easily. Those who are not assigned environmental case studies are assigned subjects on which they prepare papers to be presented at seminars. This division of assignments has been suitable because some students live in institutions which require the use of much of their free time. It also permits the careful selection of cases and avoids too great a teaching load for the instructor and social workers.

Procedure of Investigation—The procedure used for the first two years has already been reported[1], and has not been altered materially since that time. As soon as the case is assigned, the students read the clinical history of the case and read the notes of the social worker which are bound with the history. Then they discuss the case with the social worker and the instructor, and outline a program of study. The social worker takes the student to visit the family in order to establish a friendly acquaintance, and to study the home environment and obtain information on which to base further investigations. From this time on the students are urged to use their own initiative in studying all phases of the problem. The social worker makes appointments for the students to visit community agencies which have a record of the family or which can cooperate in dealing with the problem. In this way the students become acquainted with the staffs of these agencies and with their methods. The students are urged to keep the social worker and the instructor informed of the progress which they are making, and they are given suggestions in dealing with difficult situations and in developing new lines of investigation. If the case is one of communicable disease, all possible contacts are given appointments for examination in the hospital and an attempt is made to determine the source of infection.

After the students obtain the confidence of the family, they obtain information concerning income and expenditures, personality problems which exist within the family unit or in the neighborhood, social habits, leisure time activities, conflicts with the law and the general point of view of the household. Occupation is frequently an important phase of the problem, and, where it is pertinent, the employer is consulted and the place and manner of occupation studied. This frequently leads to a broad consideration of the economic and occupational hazards of industry. The social worker frequently makes subsequent visits to the family with the students and keeps in constant touch with the patient and the contacts who come to the outpatient service. The instructor usually visits the family with the students before the study is completed. The

1. Meleney, H. E.: Environmental Case Study in the Teaching of Preventive Medicine. South. M. J. 27:167-170, (Feb.) 1934.

work also requires the cordial cooperation of other divisions of the outpatient service where examinations of contacts are made. One of the greatest difficulties is to obtain the examination of contacts who are apparently in good health, and who do not see the connection between the patient's illness and their own health hazards. The persistence with which the students follow up these contacts and bring them in for examination is one of the evidences of their appreciation of the community problems involved.

It usually requires from one to three months to work up one of these cases. The work is all done during the free time of the student and often involves visits in the evening and over week ends. At the time the case is assigned, a definite date is set for the completion of the investigation and the reporting of the study at a seminar in the course in preventive medicine attended by the fourth year students. The students are given an outline on which to base their written report, but they are urged to develop a picture which will present all phases of the medical-social problem without regard to any formal order of presentation. Their report includes not only an analysis of the problems of the family but also a suggested plan of treatment. This plan must, of course, be based on the resources of the family and community. Frequently, these limitations offer an inadequate solution of the problem. In such cases the students make recommendations for the development of the necessary community resources. The reports by the students usually cover as much as twenty typewritten pages, and copies are deposited in the patient's hospital record as well as with the Social Service Division and the Department of Preventive Medicine and Public Health. At the seminars, the students are requested to summarize their reports in about fifteen minutes, but they are usually so much interested in their studies and are so easily able to hold the attention of the other students that not more than two reports can be made in an hour. The seminars are attended by the staffs of the Department of Preventive Medicine and Public Health and the Social Service Division, and frequently by the heads of other departments in the medical school and representatives from community agencies. Following each report comments are made by those who have been interested in the case.

The diseases which have been studied by this method are tuberculosis, syphilis, nutritional diseases, diabetes, hysteria and other psychoneuroses, familial diseases, such as periodic family paralysis, a few acute communicable diseases, and drug addiction. Usually more than one disease is involved in the family problem and sometimes a more interesting situation is discovered in another disease than the one which initiated the study. A few families have been studied on more than one occasion and this has added a historical element which has increased the interest of the investigations.

In addition to studies in which the family was the unit, a few studies have been made by the students involving problems of other groups. Among these studies was a survey of a block of tenements where many of the people worked in a textile mill and where tuberculosis and venereal diseases were prevalent. Another study concerned the incidence of tuberculosis in a negro blind school.

A third study, initiated by the students themselves, was an analysis of cases of stricture of the rectum with reference to lymphogranuloma as the cause of the condition.

Syphilis usually gives opportunities for the most dramatic and complicated investigations and creates the greatest interest. Tuberculosis presents the most difficult problems and the need for better community facilities and cooperation. Psychoneurosis often is very enlightening in its association with past experience and environment. Nutritional cases emphasize the importance of ignorance in the causation of disease and the need for education. Some cases have been assigned for study at the request of clinical instructors, house officers or the students themselves.

An enumeration of the agencies with which the students have made contacts in these studies will indicate the extent to which they are introduced to the welfare activities of the community. State, county and city health departments, state and local relief agencies, correctional institutions, courts, mental and tuberculosis hospitals, church settlements and other recreational institutions, the public school system, the federal narcotic bureau, clergymen, lawyers, teachers and physicians; all have entered into these studies. Some of them would otherwise have remained entirely outside the experience of the student. Their services and their deficiencies have been presented, and an interest has been created which should lead the student, when he becomes a practitioner, to assist in making their services more effective.

The supervision of the case studies by the instructor in preventive medicine and public health has been facilitated considerably by his membership on the directing boards of such agencies as the Council of Community Agencies, the Community Chest, and the Public Health Nursing Council.

It will be noted that this instruction has been conducted at Vanderbilt entirely by the case method. There have been no lectures or other instruction on the theory or methods of medical social service. The students have learned by their own efforts under the guidance of excellent social workers and a medical instructor who has an interest in community problems. The very full schedule of the students, the lack of a full time medical instructor to supervise the work, and, possibly, the lack of some didactic teaching in the environmental phases of disease have, perhaps, limited, to some extent, the achievement in this work. It is apparent, however, that not only the students who have participated in the case studies but the entire fourth year class in medicine has acquired an attitude toward medical practice which is quite different from that obtained by studying patients only in the hospital and outpatient service. Their sympathies have been broadened; the difficulties of efficient community effort have been disclosed, and the importance of the physician in participating in community efforts has been emphasized. Students have repeatedly expressed appreciation of the opportunity to study cases in this manner and have urged that all students be required to have the same experience.

This method of teaching has been described not to overemphasize it as a method of teaching preventive medicine, but to recommend it for a minor but

important rôle in teaching both preventive and curative medicine. It emphasizes the clinical aspects of preventive medicine and the preventive aspects of clinical medicine. Whether the instruction is given by the department of internal medicine or by the department of preventive medicine is immaterial. It should deal with both phases of the practice of medicine.

Each school should develop its own method based on its local facilities. The fundamental requirements are a well trained staff of medical social workers, which every teaching hospital should have, and a clinical staff which recognizes the importance of the environmental background of disease and is willing to cooperate in this work. It seems obvious that such a contribution to the education of medical students will be a great aid in developing the attitude toward the practice of medicine which will be necessary if the medical profession is to maintain its leadership in the changing social structure of our times.

Clinical-Public Health Case Studies by Medical Students, with Special Reference to Home Visits*

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Case studies by fourth year medical students were introduced in the Department of Public Health of the Yale University School of Medicine in 1929 for four major purposes:

1. To give a clearer conception of the varied factors underlying the condition of illness or incapacity seen in the hospital or outpatient department.

2. To provide opportunity to consider the causes operative in a given case and the methods by which the illness or incapacity might have been prevented.

3. To focus attention on and give more complete knowledge of the patient as an individual in relation to his personality and his social setting, as these factors affect his sickness experience or are affected by sickness.

4. To develop a better understanding of the community resources, for meeting various situations (medical nursing, public health, social service) which may be utilized by the physician.

An essential part of most of these case studies is the home visit.

Clinical experience and "case studies" under adequate supervision were long ago found to be essential to a proper training in medicine. The case study procedure, if developed carefully, is, likewise, a useful instrument in the teaching of public health and in focusing attention on the social aspects of medicine. A conception of the public health program and an understanding of the interrelationships in our complex social structure are necessary parts of the equipment of a physician who is to play an active rôle in community life and become what Osler termed a "trusted family counsellor".

BACKGROUND OF THE ORGANIZATION

Before describing our program, essential factors of the organization may be outlined briefly. Recognition of prevention as the keynote in the practice of medicine led to the establishment at Yale, in 1915, of the Department of Public Health as a basic division of the School of Medicine. The departments of the medical school, including that of public health, are immediately adjacent to the hospital and the outpatient department. There is cooperation between departments and with the health and social agencies of the community. Instruction in public health is stimulated because all other departments teach preventive medicine. Representatives of each of the clinical departments and of community health and social agencies assist in the conduct of the case studies and participate in the conferences or seminars when student reports are presented. Since the establishment in 1933 of the Medical Social Service Department of

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the New Haven Hospital, the director and her assistants have cooperated actively in this phase of our teaching program. Through the joint participation of these representatives, we have endeavored to devise practical methods of helping medical students to secure a better understanding of the background of the people with whom they work, of the various community resources available and the techniques utilized, and of the relation of the physician to the total situation. As Professor C.-E. A. Winslow has stated, "The development of a preventive viewpoint on the part of the practicing physician is fundamentally dependent on the atmosphere in which he lives during the whole four years, and it is chiefly due to the preventive emphasis in every department that some success in this regard has been attained."

The teaching of public health is correlated, through a committee on preventive medicine, with instruction given in the first three years by other departments of the medical school, which have representatives on this committee. The attitude of the medical students has changed over a period of years, as a result of a new attitude on the part of the whole faculty of the school.

The department of public health gives a course in principles of public health in the first half of the second clinical year that summarizes the main problems involved. This course consists of lectures, discussions in small groups, field work and the clinical-public health case studies. The course includes facts about water supply, waste disposal, food and milk supplies, and ventilation which the average physician should know, but its chief aim is to review all the student has learned in the three years of his relations to the community and to show him the part that he, as a physician, must be prepared to play in campaigns concerning maternal and child health, tuberculosis, venereal disease, mental hygiene and industrial hygiene. Several conference periods are devoted to the legal and social aspects of medicine.

Practical field work and demonstrations to illustrate the underlying principles of public health are essential features of the instruction of medical students. Until 1929, field work at Yale, as in many other medical schools, included a health survey of a city or town. The value of sanitary surveys depends largely on the care given to the collection and analysis of data. If supervised and supported properly, they may benefit communities and students alike; but if performed in a haphazard or perfunctory manner, they are both time-consuming and worthless from an educational standpoint.

PROCEDURE FOR CASE STUDIES

Specifically, the cases are selected to illustrate nine major problems, each forming the subject of a case conference, as follows:

Communicable diseases	Nutrition
Tuberculosis	Industrial Hygiene
Syphilis and Gonorrhea	Mental Hygiene
Prenatal and Obstetric Care	Surgery (cancer, orthopedic cases)
Pediatrics: Child Hygiene	

At the beginning of the year, each student is given an opportunity to express his preference as to the type of case he wishes to study. So far as is possible

his choice is approved. He may suggest a particular patient whom he has examined or observed in his clinical experience, and if the case seems to have possibilities for teaching, the student's choice is accepted. If not, other suggestions are received from a clinical instructor or from the medical social worker. Cases illustrating problems relating to the control of specific communicable diseases, such as diphtheria, whooping cough or intestinal diseases, are selected with the assistance of the health officer and the assistant professor of pediatrics and public health. The health director of a large industry aids in the selection of industrial cases, while a psychiatrist and psychiatric social worker assist in the selection and study of mental hygiene cases. All cases are reviewed by a clinical instructor and the professor of public health who directs this project in order to insure that each case presents sufficient possibilities to make it a valuable experience for the student. It is important to select cases from various economic and social groups to give a cross section of the community, as well as to illustrate various diagnostic problems.

All students who select cases already known to the Social Service Department, and an increasing number of students each year who select cases not known to the department, proceed to study their cases with the advice of the social worker in addition to the supervision given in public health. This constitutes about half of the class. The remaining members work on cases involving epidemiological problems, industrial hygiene, and mental hygiene. A few students engage in special studies of current interest related to the major factors growing out of the case approach. For example, in connection with the conference on syphilis cases, a study was made of the control problem in small communities of the county; in connection with the tuberculosis symposium, a study was made of tuberculin testing and x-ray procedures; the report of an industrial hygiene survey of a small city supplemented the discussion of that subject; and the analysis of cancer clinic patients added interest to reports dealing with families in which cancer was the major problem.

The student reads the medical history, discusses the case with the physician and then consults with the medical social worker or other advisors concerned. At this point the student may or may not read the social history, depending on the history and the problem. In a given case it may seem advisable for the student to have all data available; in another instance, it may seem more creative for the student to have only those facts which will make his understanding of the problem clear and which will help him in his interview in the home. Whether or not the social history is read, the student discusses the case with the medical social worker and together a plan for the student's study is formulated. This usually includes one visit to the patient's home and one or more visits to a community agency to be used in the treatment of the public health or the social problem. Other visist may be made, depending on the problems in the case and on the interest of the student. For example, the district nurse may be interviewed, or the epidemiologist and the health officer consulted. In the study of communicable disease cases, including tuberculosis, or in the investigation of an outbreak of disease, public health officials assist and routine health department methods are analyzed.

When cases are known by the Medical Social Service Department, the medical social worker always prepares the patient and other persons or agencies for the reception of the student in order that the student may receive the maximum profit from his visits. Otherwise, the professor of public health assumes this responsibility. As the student progresses, he keeps in touch with the medical social worker and assumes no responsibility for treatment of the situation, other than that agreed on with the medical social worker. This has seemed necessary in order to protect both patient and student, and in order to make the experience a more skillful and professional one. Students are cautioned to avoid situations that might embarrass the agencies dealing with the case or that might reflect in any way on the work. The study of a given patient may be supplemented by the reading of reference material; this, again, is dependent on the student and the degree to which his interest is aroused.

The purpose of the medical social worker in this teaching, as expressed by our director, Miss Elizabeth Rice, is to have the medical student secure from his case study and discussion a knowledge of an individual who is sick in relation to his social and psychologic setting, in an effort to make clear the effect of the various factors on his illness and its treatment. With an awareness of the personal, emotional and environmental factors which contribute to the patient's problem, the student recognizes the fact that illness cannot be treated apart from these factors and that, in many instances, in order to treat the illness adequately, the contributing or hampering obstacles must also be treated. This leads to a discussion of methods of treatment, including participation of the patient in the treatment process, cultural patterns, use of community resources, adequacy of social legislation, and the like. An effort is made to have the student study the situation critically to determine in what way any or all of the presenting difficulties might have been avoided in an effort to have him apply in future cases any preventive measures possible. Only indirectly is the function of the medical social worker explained, for through the case study the use of the medical social worker becomes obvious. In order to direct the interest aroused in the assistance which the medical social worker can give to the physician, either in study or treatment of the social factors involved in a given case, an effort is made to leave clearly in the minds of the students those community resources which will serve as allies to him as a private physician. The emphasis, therefore, throughout the study is on the social component in illness and the variability of that component, patient by patient.

As a guide in the preliminary study of the problem, each student is given the following outline of steps and of factors to be considered, but emphasis is placed on the importance of using initiative in working up the case.

Steps in the Clinical Case Study—1. Selection of case, in conference with Professor Hiscock and the appropriate clinical department representative, with the assistance of the Director of Medical Social Service.

2. Review of outpatient clinic or hospital history and of social service history if any. (Miss Rice)

3. Home visit. (Before making home visit, be sure to clear with Public Health or Social Service.)

4. Conference with district nurse or social or health agency *by appointment.*

5. Conference with Public Health, Medical Social Service, and clinical department concerned.

6. Preparation of preliminary report.

7. Review of report by Professor Hiscock and Miss Rice.

8. Presentation of report in Thursday conference as scheduled.

Factors to Consider in the Follow up of Clinical cases—

I. THE PATIENT:

a. Description of individual and of case.
b. Immediate cause of visit to physician, clinic or hospital.
c. Underlying causes, discovered either in the dispensary or on home visit which have an important bearing on the production of the medical or surgical complaint.
d. Other related factors in present or past social history.
e. Response to advice and treatment in dispensary or hospital. If response is not good, why? What are the underlying causes?
f. Has medical advice been sought previously outside the clinic? From physician? Other? Use of "patent" medicine?

II. THE FAMILY:

a. Description and social history. Social tendencies of mother and father.
b. Special health, medical or social problems.
c. Contacts with dispensary or hospitals.
d. Factors related to case study—financial status, etc.

III. THE HOME AND SURROUNDINGS:

a. Brief description, general appearance, light, heat, yard, milk supply, food supply, surroundings.
b. Reasons for present home circumstances.

IV. THE COMMUNITY:

a. Social or health agencies concerned over period of years.
b. Services rendered—adequacy.
c. Attitude of family toward agencies.
d. Possibilities of other services needed.
e. Has the community handled the problem properly? Are there any suggestions for a more scientific treatment of this case from a medical or social point of view?

V. SUMMARY:

a. How could the medical, mental or surgical condition have been prevented?

b. How can conditions be improved?
c. Specific recommendations regarding this case.
d. Specific recommendations regarding this type of follow-up study in the future.

VI. List of persons and agencies interviewed regarding the case; references to literature.

Presentation of Reports—After the student has completed his study, he prepares a case history which, if the case were known to Medical Social Service, he submits, first, to the medical social worker for her suggestions. This history is also reviewed by the Director of the Social Service Department, who participates in the discussion in the seminar. Her emphasis is to clarify any points not emphasized adequately and to try to lift the discussion from the individual case to other problems not brought out in the particular case but frequently associated with the disease. If the case deals with an epidemiologic problem, the preliminary report is first discussed with the clinical instructor and the public health representative. The student then makes such additions or corrections to his paper as he wishes and later presents it completely or in summarized form, depending on the problem and the number of cases scheduled, to the entire class in the principles of public health composed of both fourth year medical students and of graduate students in public health.

There are present at the seminar, besides the students, the instructors in public health, one of whom conducts the seminar, the clinical professor in the department from which the cases were selected, the Director of Medical Social Service, and such other discussants as the cases indicate, such as the city health officer, who attends all of the sessions, a representative from the Visiting Nurse Association, and, sometimes, one from the social agencies concerned in the case. The students raise questions after the case is presented and these are discussed by the group. The discussion of the consultants aims to correct any erroneous impressions which have been acquired, but more particularly to summarize and to point up the principal elements revealed by the reports. It is important to leave the students with a picture of important factors which they are likely to meet in their practice and of helpful methods of approach to these problems. Some of these problems, the practicing physician is likely to face and to help solve himself, especially if he practices in a rural area, while in urban communities he may often receive assistance from agencies especially equipped to assist in these tasks.

Among the questions usually asked after a case is reported are the following: How could this condition have been prevented, last week, last year, or ten years ago? After the condition developed, were the proper steps taken for its detection and amelioration? What can be done about the situation at present? How far are the community resources adequate to meet situations of this kind?

Many of the cases raise legal, social, mental, medical, nursing and public health questions. The students have studied their cases intelligently and industriously and their reports are generally prepared carefully. In fact, some

of the reports have formed the bases of clinical lectures and may be used for community case conferences by social agencies. Factors discussed in class with representatives of the health department or hospital have also led to action related to modification of procedures, or to additional case finding activities.

Our experience has led us to believe that the students, as a group, derive more benefit from the class conferences or seminars if not more than two cases are presented and discussed fully in a single session. If four or five cases have been studied in a given field, one or two may be selected for formal presentation while the other students participate in discussion, bringing out of their experience factors not revealed in the major report. Joint conferences between each group of students, who are to participate in a session, with the clinical and public health instructors previous to the day of the symposium give the students an opportunity to help in deciding together the points to emphasize and the order of presentation of the reports. Students derive personal benefit from the presentation of their reports in class, especially if the reports are not read but are presented from outline notes.

COMPLEXITY OF PROBLEMS

Analysis of 200 of the case reports, representing slightly more than one half of those presented to date, reveals other complicating medical problems in the patient or family in 77 instances, as, for example, tuberculosis and syphilis, pregnancy in a woman with a cardiac defect and malnutrition, syphilis or gonorrhea and mental defect, typhoid fever and pneumonia, dysentery and diphtheria. A variety of social problems also complicated the situation in many instances, involving factors of low economic status (often with large families), child placement, rehabilitation or reeducation, unemployment, delinquency, drunkenness, dependency and marital difficulties. In 12 cases, more than five community agencies were mentioned as having at some time worked with the family; for the whole group, the number of agencies involved in one family varied from none to eighteen, the Visiting Nurse Association and the hospitals being most commonly listed. During the course of the seminars when reports are presented, the work of the agencies and the gaps as well as strong features of the community machinery are discussed frankly. At the conclusion of these exercises, a fairly complete picture of these resources and methods has been drawn. Furthermore, the relationship of the physician to the health department and to other community health and social agencies and institutions has been emphasized.

VALUE OF THE HOME VISIT

The home visits, supplementing the other phases of the study, help to develop an appreciation of the interplay of the social situation and the medical treatment. They focus attention on the importance of understanding the personality of the patient and the members of the family, in order to understand and to treat the situation adequately. Conferences following the home visit, when the material assembled is evaluated and related to the problem in general, serve as one of the most constructive features of the experience for the students. They

become impressed with the fact that frequently the condition of a patient who comes for medical advice or treatment is only an end result of some earlier symptom or condition. In many cases, the condition that prompted a patient to come to the clinic is not nearly as serious as some other problem of the patient or his family that may be disclosed subsequently. For example, through the initiative of one student, after repeated home visits and conferences with the clinician originally in charge of the case, and later a psychiatrist, the patient was transferred to psychiatry and improved promptly. Not infrequently, students have been helpful in securing examinations of a family group or other follow up results of importance. Often the problem calls for more than medical treatment, nursing care or social service, requiring a combination of all.

To be more specific, in a family in which there is a case of tuberculosis, contacts may be found who have not been examined and in whom additional stimulus is necessary to bring about the necessary visits to the clinic. In visiting a medical case, one may find several children who show signs of rickets or malnutrition or some other defect, and the parents are urged to bring the children to the clinic. The student may arrange to meet the family at the time of the next visit to the clinic and thereby establish closer working relationships and better understanding.

Certain diseases or disabilities may suggest association with abnormal living or working conditions that need an investigation into housing problems or industrial hazards. Others lead directly back to epidemiologic factors that might have been controlled by more adequate community machinery or closer working relationships. In the field of mental hygiene, problems of the courts, of school or family adjustments, and of various social agencies in dealing with emotional and psychologic factors are revealed. Other studies bring one face to face with economic and social problems, and with problems of eugenics that need careful consideration.

One student summarized his observations, in part, as follows: "The approach to the case itself is directly within the desires of the students. It is or has been theirs on the wards, and what student with his present day training or background is not stimulated to conjecture upon the possible story behind the scenes! The student is primarily on his own initiative aroused to investigation. The home contact in most of the cases is invaluable if for nothing more than to bring to the realization of the student the complexity of apparently insuperable obstacles and the amount of thought and diligent labor needed to overcome them. In the papers reviewed, the problems were perceived and suggestions made for admirable adjustments." Another student wrote: "If there is any one thing that impressed me while I was investigating this case, it was the many ways in which rather trying and difficult situations, which have required many hours of study and thought for their solution, have been adequately and expeditiously handled by the Social Service Department. . . . One is apt to forget that the patients we are treating have social and psychic problems, as well as somatic complaints. This last became increasingly evident in this case, especially when it was realized that very little could be done either surgically or

medically to alleviate her suffering. It was at this point that the patient became a problem beyond the scope of a hospital of this kind, and were it not for the fact that an organization existed which was interested in the problems, such as this, Mrs. K. and her husband would undoubtedly have had a stormy time of it indeed." Physicians now in practice who have participated in this project, have voluntarily indicated that they have derived benefit from these experiences. We plan in the near future to secure additional opinions from our graduates to aid in future planning of the work.

Finally, these studies have not only been helpful to the students, but also on several occasions proved of direct value to the patients, to the clinics, to the city health department, and to the other community agencies. Fundamental prevention has been emphasized and vital contact made between the patient in the clinic or hospital and the preventive and ameliorative machinery of the community. At the conclusion of an annual series of case reports, most of the students have become familiar with the community health and welfare resources and with problems of human relations. Through the breadth of view and the vital human sympathies aroused, it is believed that the students will approach patients in their private practice more constructively and that they will participate far more effectively and sympathetically in the public health programs of their communities as a result of this experience.

Domiciliary Medicine at the University of Georgia School of Medicine*

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For many years teachers of medicine have been dissatisfied with the results obtained from instruction confined to hospital wards and outpatient clinics. Essential and indispensable as they are as teaching assets, they fail to give the student confidence, poise and, perhaps, understanding when confronted with the most urgent of his postgraduate problems—the care of patients in their homes. In the majority of teaching hospitals, beds not filled by the urgently ill are constantly occupied by patients presenting conditions which are the subject of clinical research. Minor ailments are seen only accidentally and the symptoms and signs of the onset of illness are known to the student only from text books and from patients' histories. Since it is economically impossible and probably pedagogically unwise to attempt to alter this situation, various methods have been devised to supplement the clinical clerkship with extramural instruction.

The method must depend on local conditions, but the objective is always the same: to bridge the wide gap between hospital and general practice and to familiarize students with the home care of the sick. The fact of physical separation from the hospital, with its often irksome routines and constant supervision by resident and visiting staffs, impresses the student with his personal responsibility and stimulates accuracy of observation and thoughtful consideration of diagnosis and treatment. Any plan for outside clinical instruction presupposes that adequate records be kept, all available facilities for diagnosis utilized and that supervision is constant but unobtrusive.

The present report deals with the plan by which our own problem has been met under highly advantageous circumstances. We cannot advise that a similar scheme be adopted in any other locality, but our results have been highly gratifying. Augusta is a city of about 70,000 persons, medically pauperized for more than a century because of the necessity of securing ample teaching material for a school of medicine. Nearly half the population are negroes and more than half depend on the University Hospital and its outpatient departments for medical attention. For many years the city physicians have been mandatory appointees of the school of medicine. This fortunate provision has made it possible to maintain a staff of city physicians trained in hospital routine and acquainted with teaching methods.

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In 1925, domiciliary instruction in medicine was inaugurated as part of fourth year instruction. Previous reports have dealt with its inception and general plan[1]. At first, the entire city was included in the teaching area and the three city physicians divided the responsibility of instruction. It was found that frequent changes in the personnel of the supervising staff and the wide distribution of patients were detriments to the project. In 1933, a permanent director of the service was secured and teaching activities were restricted to a single district of the city. This district, while large and including the major portion of the negro population, is adjacent to the hospital, so that little time is lost in travel. Continuity of instructorship has proved most important.

Method of Operation.—The fourth year class is divided into three groups which rotate as clinical clerks on the medical and surgical wards of the hospital and as assistants to the city physician. Eleven weeks are spent on each assignment. The students on outside service furnish their own transportation. They are equipped to make a complete physical examination, to secure blood for all usual quantitative, qualitative, chemical and serologic examinations, and containers are furnished for sputum, urine and stools and material for nose and throat cultures. A room is provided in the hospital with all facilities for the preparation and filing of records. Here, too, they meet the instructor. All city physicians' calls are taken by a clerk at the hospital who allocates them by districts. Those falling in the "teaching district" are assigned, in rotation, to the students on outside service. The group assembles at 9 o'clock each morning and is met by the instructor, who distributes the accumulated calls. Requests for medical attention coming in later are communicated to students by telephone. At 5 o'clock in the afternoon there is another conference of students and instructor, while during the day the physician in charge has seen all patients and made his own evaluation of their cases and a general discussion of the day's activities is held. Night calls are taken by one fourth of the group, in rotation, and all night calls are reported and discussed at the morning assembly.

At the first visit, students take a complete history and make a careful physical examination, secure specimens of blood and urine and any other material which seems indicated. The data are recorded on record forms uniform with those of the hospital and outpatient department. Diagnoses are confirmed or modified by the instructor during the first twenty-four hours following the student's visit. Obvious emergencies may be sent into the hospital. Ambulant patients requiring special examinations may be referred to the outpatient department. Treatment is reviewed carefully and any necessary changes are made. Considerable latitude in therapy is allowed and even encouraged. In special cases, parenteral administration of various remedies is allowed and tube feeding and simple nursing procedures are commonly carried out. Such procedures as catheterization, paracentesis and thoracentesis are done under the supervision of the instructor. All usual aids to diagnosis are employed, sputum from patients

1. Goodrich, W. H. and Sydenstricker, V. P.: Attendance on City's Sick Poor as Part of Clinical Instruction at the Medical Department, University of Georgia. Methods and Problems of Medical Education. Series 6:247, The Rockefeller Foundation; New York, 1926.
Kelly, G. L. and Phinizy, I.: Domiciliary Medicine in Fourth Year Teaching. J.A.M.A., 90:1895, 1928.

with pneumonia are typed, blood, urine and stool cultures are made as indicated. Wassermann reactions are routine, and serologic examinations of all kinds are done in the hospital laboratories. All reports go to the student in charge of the patient. Roentgen ray and electrocardiographic studies are available for all transportable patients. Prescriptions are written by students and filled by the

TABLE 1. DIAGNOSES IN 10,120 CASES, 1934-1937

Infectious Diseases (4,536 cases)	No. Cases
Syphilis, all stages	1,569
Gonorrhea, all stages	1,124
Influenza	992
Lobar Pneumonia	223
Tuberculosis	155
Malaria	104
Typhoid Fever	28
Rheumatic Fever	9
Nutritional and Constitutional Diseases (232)	
Cancer	101
Pellagra	78
Miscellaneous Conditions (290)	
Poisoning	35
Arsphenamine reactions	26
Diseases of Respiratory Tract (1,911)	
Bronchitis	402
Tonsillitis	346
Bronchial Asthma	267
Otitis Media	130
Diseases of Cardio-vascular System (1,513)	
Arterial Hypertension	815
Congestive Heart Failure, all types	407
Arteriosclerosis	196
Coronary Thrombosis	41
Rheumatic Heart Disease	36
Diseases of Gastrointestinal Tract (558)	
Gastroenteritis, Acute	233
Parasites	93
Peptic Ulcer	60
Appendicitis, Acute	56
Cholecystitis	26
Diseases of Genito-Urinary Tract (Nonvenereal) (1,212)	
Pyelitis	524
Cystitis	206
Nephritis, all types	182
Renal Calculus	33
Diseases of Nervous System (Exclusive of Syphilis) (259)	
Functional Disorders	65
Diseases of Locomotor System (290)	
Arthritis, Chronic	150
Arthritis, Acute	89
Diseases of Skin (210)	
Epidermophytosis	85
Furunculosis	14
Eczema	17
Scabies	13
Diseases of Ductless Glands (26)	
Diabetes	10
Exophthalmic Goiter	1

hospital pharmacy, subject to certain well enforced regulations. The physician in charge is constantly available for bedside consultation, and, frequently, the entire group is taken to see a particularly important case.

History meetings are held by the instructor once each week. All cases discharged during the week are reviewed and the records criticised. Current cases of unusual interest are discussed. Records are filed and preserved for four

years; these histories are often of great value when the patient is subsequently admitted to the hospital. When patients are referred to the hospital they are followed up on the wards and on dismissal are reassigned to the student originally in charge. One a week a "prescription history meeting" is conducted by the pharmacist of the hospital. All faulty prescriptions are discussed and defects pointed out.

Material Available for Teaching.—Since the past five years represent a period when conditions have been quite stable and routine is well established, they may well be used for an example of the best that our plan offers. During this time, 12,140 patients have been attended by students who made 35,740 visits of record, but the actual number of visits was greater, since many brief follow-up calls were not entered. Many cases required only one visit; some were seen daily over long periods. The average number of patients assigned to each student was sixty-seven. The general pattern of clinical experience is shown in Table 1, which summarizes very briefly diagnoses in 10,120 cases attended during the past four years. Except when syphilis was present, only the chief filing diagnosis is recorded. Since the patients were almost exclusively negroes, their ailments represent a fairly valid cross section of the incidence of disease in that race in our locality. The frequency of certain diseases is indicated under the various diagnostic headings. It is notable that syphilis was only one-half as frequent (15.5 per cent) as on the colored wards of the hospital. The very low incidence of rheumatic fever and rheumatic heart disease is in keeping with general experience in Augusta. Arterial hypertension was very common, accounting for more than one-half the cases of cardiovascular disease. Bronchial asthma was surprisingly frequent while endocrine disturbances were conspicuous by their scarcity.

ESTIMATE OF RESULTS

To us, the method of extramural teaching which has been outlined has seemed of great use. The student is brought into contact with problems of diagnosis, treatment, economic and psychologic complications and the whole technique of the general management of patients, under conditions analogous to those encountered in general practice. At the same time, he is constantly under guidance so that he and the patients are protected. The necessity for producing adequate records of patients outside the hospital has seemed to remove the barrier which seems to exist in the minds of many general practitioners between the importance of records of hospitalized and nonhospitalized patients. This sequel to the outpatient service has been particularly noted by us when called in consultation with recent graduates engaged in general practice. Those who have had the advantage of instruction in domiciliary medicine seldom fail to present systematic and valuable notes covering all essential information necessary for an estimate of the case in hand. Similarly, the requirements in laboratory work seem to have been fruitful, for the men learn to secure specimens at the first visit and also to evaluate the importance of various aids to diagnosis in different diseases. This also has been a source of gratification when called by former students to see patients, often in remote districts. The lessons learned

seem to be carried over, even through several years of hospital residence and have accomplished even more than was hoped in correcting the traditional disregard often shown by the general practitioner for proper records and pertinent laboratory examinations. A detail of instruction not emphasized is the weekly conference of our outside group with the pharmacist. This may seem unimportant but it has made a noteworthy improvement in the ability of the recent graduate to write correct prescriptions and also to prescribe in a manner that is economical for the patient.

Our students have been enthusiastic about the service since it was begun and the "outside group" has an esprit de corps not found in the men engaged in conventional hospital service. The free discussion of diagnosis and treatment and the conferences on prescriptions create keen competition and stimulate endeavor to a degree not seen in other sections of the class. After twelve years, we feel that this period of instruction is the most stimulating and, perhaps, the most valuable we offer.

The Teaching of Domiciliary Medicine at Tufts College Medical School

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The Boston Dispensary was founded in 1796. Ever since that time this privately supported charity has cared for the sick poor in their homes. It was the first medical institution in New England. The first hospital, the Massachusetts General, was not opened until twenty-five years later. For the first fifty years of its existence, the Boston Dispensary did not have a local habitation, all its work being done in the homes of its patients. At first, only one physician was employed, Dr. John Fleet, a member of the first class to be graduated from the Harvard Medical School. Six years later, in 1802, a second district physician was appointed. This was Dr. James Jackson, afterward the first physician of the Massachusetts General Hospital and the leading physician of New England. At that time, Harvard was without clinical facilities. Practical experience in the care of the sick was obtained by serving as an apprentice to a doctor and following him on his daily rounds. Oliver Wendell Holmes gives us a picture of this method of clinical instruction and reproduces the supposed conversation between Master Giles Firman of Ipswich, Massachusetts, an early physician in the Massachusetts Bay Colony, and his pupil as they jog along the bridle path on their horses from one lowly dwelling to another, discussing the significance of the symptoms exhibited by the patient just visited.

Opportunities for clinical instruction from leading physicians were eagerly sought by medical students, and for it they had to pay a goodly sum to the doctor whose practice they followed. Within a few years of the founding of the Dispensary, the work having increased, its managers divided the town into districts, to each of which a physician was assigned. The term, "District physician," still in use, doubtless dates from that time. Positions on the staff were prized highly as the physicians were able to draw private students who accompanied them on their rounds. Doubtless, after the opening of the Massachusetts General Hospital, in 1821, fewer pupils were willing to pay for the privilege of accompanying these District physicians on their visits. Nearly all of the leading physicians of Boston during the period from 1800 onward for nearly a century served as Dispensary physicians during the early years of their practice.

Each District physician worked without medical supervision. They kept clinical notes or not, as they chose. They were required, even in the early days, to report the names of the patients, the diagnosis and the number of visits made.

Oliver Wendell Holmes, who for a short time was a Dispensary physician, wrote an able paper on bedside teaching and pointed out the advantage in this respect of the old time apprentice system. Attempts were made, over a period

of one hundred years, by various clinical teachers who were District physicians, to take students with them on their visits to the homes of the sick poor, but the teaching was largely on a voluntary basis. Harvard Medical School rarely utilized for its students this form of bedside medicine available through the Boston Dispensary. In fact, there was little bedside teaching in Boston hospitals and even that little was gradually given up. As late as 1902, when one of us began his clinical work at the Massachusetts General Hospital, students were not admitted to the wards of that institution. Early that same year one of us had seen Professor Jürgensen, who had charge of the medical polyclinic in Tüebingen, travelling with five or six students in an omnibus to a neighboring village to visit the sick poor in their homes. Throughout his long teaching period in that university he had no hospital beds; the only beds about which he could teach were in the patients' own houses. In 1908 one of us accompanied Professor Jürgensen's successor, Professor Otfried Müller, and his students in a horse drawn conveyance to the outskirts of the town and saw him examine a small child, ill with bronchopneumonia, in the kitchen of a poor woman's house and demonstrate the case to the four or five students who were with him.

As the years passed, it became more and more difficult to induce able men to do the work of District physicians. The position paid only a small sum annually and there was no check on the quality of medical care given the patients. Finally, in 1927 it was decided to appoint as full time physician a well trained young man who had just completed with credit a long internship. Within a year, more physicians with similar training were secured. A central office was established at the Boston Dispensary and accurate records of all cases were kept. The direction of the service was placed in the hands of the physician-in-chief of the Dispensary. In September, 1928, it was decided by Dr. A. Warren Stearns, Dean of Tufts College Medical School, to utilize the District Service for teaching the senior students of his school. The work was at first voluntary but, after a year of successful trial, it was made compulsory. The medical responsibility for the service was taken over by the medical department, and a one month's course in domiciliary medicine for fourth year students was incorporated into the curriculum. The District Service has been maintained up to the present time under this plan of combining teaching with medical care.

ORGANIZATION*

The active staff is headed by a full time salaried Medical Supervisor of District Work, in charge of medical and teaching administration, and responsible to the chief of the Medical Department of the Boston Dispensary. In addition to the Medical Supervisor, the staff is composed of eight or ten full time physicians with rank of graduate assistant. Each graduate assistant acts as preceptor, usually to two students. The District physicians are appointed for an initial term of one year. Selection is made from promising candidates of approved medical schools, who, having completed a two years' internship, present satisfactory recommendations from their clinical chiefs and who wish to

*For a more detailed description of the Boston Dispensary District Service, see reference to paper by Wing.

continue a third or fourth year of graduate work. The active staff for 1938-1939 includes graduates from Tufts, Harvard, Indiana University, University of Maryland, and Munich.

The nonmedical personnel of the District Service working in the District Office consists of a District work executive. a full time social service worker and several clerical workers.

Every case is reported to the Medical Supervisor who himself visits important cases, either alone, or with the doctor in charge, on the following day. Frequently, the District physicians call the Supervisor on the day of the first visit to see either puzzling cases or those requiring special management.

Once having decided to treat a patient at home, the District physician is responsible for attending the patient through his illness, making such revisits as may be necessary. Even for patients requiring prolonged care, home treatment, rather than hospitalization, is frequently instituted when the home conditions are suitable. Such cases include rheumatic fever, chorea, arthritis, nephritis, diabetes, various types of heart disease and even pulmonary tuberculosis. Also, in suitable cases, special treatments are carried out successfully at home, as, for example, the administration of antipneumococcus serum.

Patients requiring institutional care are sent to hospitals and a report of the subsequent course of the case is obtained later.

The following list of cases seen in all the Districts on one day (October 17, 1938) illustrates the amount and variety of clinical material available for teaching purposes. More cases are seen daily during the winter months than during the fall months.

TABLE 1. CASES SEEN ON ONE DAY IN ALL DISTRICTS

DISEASE	No. Cases	DISEASE	No. Cases
Common Cold	33	Tuberculosis (pulmonary)	5
Grippe	1	Rheumatoid Arthritis	1
Cervical Adenitis	2	Hypertrophic Arthritis	1
Otitis Media: Suppurative	4	Acute Glomerulonephritis	1
Acute Sinusitis	2	Catarrhal Jaundice	3
Acute Bronchitis	12	Acute Appendicitis	2
Bronchopneumonia	11	Diabetes Mellitus	2
Lobar pneumonia	1	Pyelitis	3
Asthmatic Bronchitis	4	Brain Tumor	1
Bronchial Asthma	2	Chronic Hepatitis	1
Scarlet Fever	6	Cholecystitis	1
Whooping Cough	3	Mastitis	1
Measles	1	Pelvic Inflammation	1
Mumps	3	Sacroiliac Sprain	1
Chicken pox	4	Phlebitis	2
Impetigo Contagiosa	1	Nutritional Anemia	1
Erysipelas	1	Inguinal Adenitis	1
Ringworm	1	Gastroenteritis	5
Rheumatic Fever	12	Croup	1
Rheumatic Heart Dis.	2	Pyorrhea Alveolaris	1
Subacute Bacterial Endocarditis	1	Malnutrition	1
Arteriosclerotic Heart Dis.	9	Miscarriage	3
Hypertensive Heart Dis.	6	Contusion of Chest	1
Generalized Arteriosclerosis	2	Fracture of Wrist	1
Cardiac Asthma	1	Injury to Eye	1
Congenital Heart Dis.	1	Psychoneurosis	4
Pleurisy	3	Alcoholic Gastritis	1

TEACHING PLAN

During the school year, from eight to sixteen fourth year students from Tufts College Medical School are assigned each month for District duty. Usually two students are assigned to each District physician. Each student is required to equip himself with a handbag, stethoscope, notebook, thermometers,

pipets for making blood counts, bottles for obtaining specimens of urine, an otoscope and an ophthalmoscope.

The students leave for the District calls at 11 a.m. daily. They cannot be sent out earlier because it takes the clerks in the District Office until about 10:30 a.m. to arrange all the calls that might have come in on the morning of the same day and the late afternoon and evening of the day before. Each student is usually assigned two new cases and makes from four to six revisits daily. The students see the new patients first and are met by the preceptors in the patients' homes later in the afternoon at a definite time. The student is required to take a careful history and to make a complete physical examination of each patient. The findings are written down in a notebook and are ready for the preceptor when he arrives. The preceptor himself, on arriving at the patient's home, reads over the history and physical examination as written by the student and notes down corrections and additions. He then re-examines the patient with the student and dictates a summary note which the student records verbatim in his notebook. A diagnosis is then decided on and treatment is outlined. The corrected record is transferred later by the student to standard Boston Dispensary record cards. From then on, the student sees the patient as frequently as is necessary, either alone or with his preceptor. Progress notes are written for each revisit. The progress of the patients whom the student sees alone is reported to the preceptors on the following day.

After the new cases for the day have been disposed of, the students proceed alone to make revisits on patients who have been seen previously and require further observation and treatment.

The students, in addition, are required to make a complete urinalysis on every new patient, a blood smear examination on febrile patients whose temperature is less than 101° F. Additional laboratory tests are ordered by the preceptors. These simple routine laboratory procedures are carried out by the students themselves in a special laboratory available for that purpose in the Boston Dispensary. If a patient requires special tests, such as X-rays, basal metabolism determinations, etc., he is asked to come to the Boston Dispensary as soon as he is able to leave his home. All the diagnostic and therapeutic facilities at the New England Medical Center, of which the Boston Dispensary is a unit, are available to the District Service.

The following list of the cases seen by a student in one month is representative of the clinical material available for study:

TABLE 2. CASES SEEN BY ONE STUDENT IN ONE MONTH

DISEASE	No. Cases	DISEASE	No. Cases
Common Cold	8	Rheumatic Heart Disease	1
Grippe	2	Hypertrophic Heart Dis.	5
Acute Tonsillitis	5	Hyperthyroidism	1
Peritonsillar Abscess	2	Chronic Bronchitis	1
Cervical Adenitis	1	Bronchial Asthma	1
Acute Suppurative Otitis Media	1	Acute Gastroenteritis	1
Acute Bronchitis	1	Pyelitis	1
Bronchopneumonia	3	Cancer of Lung	1
Measles	1	Cirrhosis of Liver	1
German measles	1	Cerebral Thrombosis	1
Chicken pox	1	Hypertrophic Arthritis	1
Thrush	1	Sciatica	1
Rheumatic fever	4	Septic knee	1
Rheumatic Heart Disease with congestive Heart Failure	1	Toxic rash	1
		Incomplete miscarriage	1

The students report to the Boston Dispensary daily at 8:30 a.m. From 8:30 to 9 a.m. the preceptors meet the students. The preceptors alternate for this purpose. During these short morning sessions the students are given an opportunity to discuss problems presented by the cases seen by them late on the previous afternoon. This also gives each preceptor an opportunity to discuss cases with the entire student group. From 9 to 10 a.m. the students participate in the general staff conference which is held daily. From 10 to 11 a.m. the students receive special instruction in practical therapeutics, preventive medicine, dietetics and social aspects of medicine.

VALUE OF DOMICILIARY TEACHING

Domiciliary training in medicine gives the student some training under the same conditions which confront the general practitioner or family doctor. The advantages of this type of bedside medicine have been emphasized by Bardeen, Goodrich and Sydenstricker, Kelly and Phinizy, Pratt and Schulman. It is a well known fact that of all patients seen by the general practitioner, not more than 10 per cent require hospital care (Holbrook). This is a point of view which is little appreciated by the medical students of today or even by many of their teachers. The students studying the onset of acute disease in the patients' homes learn the significant fact that a good history and a careful physical examination are all that is needed in the majority of cases to make a diagnosis and to institute proper treatment. On the hospital wards, students often get the impression that little can be done without expensive and extensive equipment for laboratory procedures. The student on the District has frequently the opportunity of observing the early symptoms of many diseases. He learns to make a diagnosis with a minimum of laboratory assistance and to treat patients with the facilities available in these poor homes. He feels his own responsibility dealing with these cases much more than he does in a hospital ward.

Besides medical problems, the student is frequently confronted with social problems which are the result of poverty, improper housing conditions, lack of food, domestic discord and the financial burden of clothing and feeding large families. In other words, he is brought into intimate contact with disease and the misery that attends it, in their chief breeding ground.

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DISCUSSION

ON SYMPOSIUM ON "HOME VISITS BY MEDICAL STUDENTS AS A TEACHING ASSET"

DR. H. G. WEISKOTTEN (Syracuse University): We have been experimenting with home visits by medical students since 1930 and were inspired to initiate our program by Dr. Hiscock's work which started the previous year in New Haven. The details of our program have been changed from time to time. I should like to emphasize one or two points. Such a program ought not be initiated in a haphazard sort of way, and one of the most important features of the program is adequate and competent supervision, and such supervision is very time consuming.

I feel that our program would not have been successful without the supervision of a man who was on active duty on the medical ward of the hospital and who, at the same time, was very much interested in the social and preventive aspects of medicine as well as having had a training in psychiatry. A considerable amount of his time has been devoted to this work so that the program is, in a way, expensive. We would not have been in position to carry it out if it had not been for a grant from one of the foundations.

We have felt that it is very important to assign to students for home visits only cases which they had worked up thoroughly on the medical ward. We felt that the approach of the student should be medical and that he himself should do a thorough job. It has been our experience that the student profited most from his study if not allowed to read the social history before making his study; that is, he makes the study of the case under the supervision of the medical man without having had access to the social history.

The cases are picked by the medical man in conference with the social worker. The instructor may accompany the student on his first visit to the home or the student may go alone. The student makes a good contact because he has been the patient's physician on the ward. After his first visit, the student reports to the supervisor and the case is discussed thoroughly and, on the second or subsequent visit, the supervisor may accompany the student. The student himself visits all the social agencies involved in the case and frequently other agencies which he thinks may have been in a position to render service.

We have found it best to have the student make his report at a small group seminar rather than before the entire class. It is much more informal and much more valuable under those circumstances. The seminar is attended by the supervisor and usually others from the medical service, the professor of public health, the professor of psychiatry, the social workers who are familiar with the case, and a group of from six to eight students. For quite a period we had a representative from the Department of Sociology of the University attend these conferences. Now the professor of sociology drops in occasionally. I do not know whether it is just a matter of the department personnel being too busy or whether there was some lack of interest on their part. Frequently, they had very definite contributions to make.

Students rotate in attendance at the seminar so that each student hears a group of cases discussed. In the seminar, etiology, prevention and adequate medical care are stressed. After reporting on each case, the student continues to follow it and before graduation files a supplementary report on it.

Our Department of Pediatrics has for several years required similar home visits by students during the period of their pediatric clerkship. Dr. Doust feels that these visits are of great value to the student and his more complete understanding of the cases assigned to him.

There are several interesting developments in connection with our program here. Several problems have presented themselves. Our experiences have emphasized the enormous wastage, at least in Syracuse, in connection with hospitalization of ward patients. We find that the medical follow-up of ward patients is not what we would like to have it. We have found that for various reasons many of these patients either cannot get to the dispensary or for some reason cannot be followed by the outpatient department.

For one year we studied all patients discharged from the medical ward of our hospital and followed them for one year. We were ashamed of the results of that study because of our apparent lack of satisfactory medical follow-up. We would like to initiate a program including an extramural resident who would look after the clients of our medical wards on discharge; see that they were in touch with the outpatient department, and, if needing care in their home that they receive that care. A brief experiment in that connection suggests that such a program might well be worth while and would be a real contribution to the adequate medical care of ward patients who were clients of any hospital.

Rev. Alphonse M. Schwitalla, S.J. (St. Louis University): All the men who have talked from this platform this morning have talked from the viewpoint of the happy possessors of something. I should like to talk from the viewpoint of green-eyed envy. I had the privilege, a very short time ago, of attending one of Dr. Weiskotten's seminars, at which a case was presented. I was profoundly impressed by the point that Dr. Weiskotten mentioned, the fact that a very careful and thorough clinical study must precede these home visits. It is obvious that a student who goes out into homes without knowing the medical history of the patient, may approach the problem from the viewpoint of a social worker, hardly from the viewpoint of a medical man, unless he has had a very careful contact with the case.

I heard a student present this case after being in contact with the case on the hospital wards for, I think, four weeks previous to his discharge. I was impressed, furthermore, by another thought in this. Dr. Weiskotten has emphasized the wastage in the use of the hospital wards for teaching. I believe the case I heard presented emphasized the wastage of social service, medical social service, effort in a community. There were at least seven agencies, as I recall the number, who were engaged in some way or other in the handling of this case, without any centralized responsibility either in the medical men or in the medical social service groups. The student himself became decidedly aware of the importance of in some way or other centralizing all the effort that was going into the care of that case. If nothing else was gained by the student than that conviction, I am sure the study was entirely worth while.

I feel that we are dealing with a subject of tremendous importance to all of us who are conducting medical schools, and I would make a very strong plea that those of us who have not yet succeeded in inaugurating some kind of experience of this kind might bend our efforts to the creation of such facilities for our students.

Dr. H. R. Wahl (University of Kansas): What is the attitude of the general practitioners to the student home visits?

Dr. Alan M. Chesney (Johns Hopkins University): I take it that it is not the responsibility of the Chair to answer that question. I have one slight contribution to make to this subject, if I may take a moment or two. It is in the nature of a historical contribution. I hope you will pardon my reference to our own school and hospital but it is necessary to mention them in order to give you the complete story. It concerns a great figure in the Medical Corps of the United States Army, namely, Dr. John Shaw Billings, and it seems to me appropriate to bring the story before you now, since in April last the hundredth anniversary of his birth occurred.

In many ways, Billings was one of the great figures in American medicine. I have been tremendously interested to find out, in the last few years, how much he knew about medical education and what he said about it, and I got this information quite by chance. It is, I think, a phase of Dr. Billings' many-sided activities that probably is not generally known. I hope that some time I shall have a chance to get this material together and, perhaps, present it before this Association, but, first, I want to tell you this one story in connection with the subject of home visits by medical students as a teaching asset.

Billings, you may remember, was engaged by the Trustees of Johns Hopkins Hospital to plan that hospital, and subsequently he was also engaged to plan the Peter Bent Brigham Hospital. He came to Baltimore in 1876, which was the year that the University opened, but it was quite a while before the medical school opened, (1893) and he was given an appointment in the University as Lecturer in the History of Medicine. In the next year, 1877-1878, he gave a series of lectures, twenty all told, at the Johns Hopkins University, which then consisted only of a faculty of philosophy, for there was as yet no medical faculty. This series of lectures was on the history of medicine, medical education and medical licensure.

Those lectures have never been published in toto, but the two lectures on medical education with reference to the Johns Hopkins University were printed for private circulation among the Board of Trustees and then, somehow, were buried in the archives of the University, and lost sight of for a time. They were discovered in the alumni office a few years ago and were brought to my attention. I was tremendously interested in them because they contained the answers to a question which Billings set for himself. That question was: How should the Johns Hopkins University develop its Department of Medicine? He proceeded to take forty-two printed pages to answer that question. It is a most illuminating document, or at least it was to me, because of the modernity of the point of view of this man whose career was not in any medical school from the time he left Cincinnati to go into the Union army as a surgeon in the early part of the Civil War, and because he talked about a great number of things in 1877 which we think are new today. He talked about preventive medicine in those lectures, for instance, and I wish I had brought the list of subjects which he talked about in reference to that subject for they would have fitted in so well with yesterday's discussion.

One of the things he talked about was the education of the senior students and he emphasized the fact that it would be highly desirable if senior students would visit patients in their homes and treat such patients under the care of practitioners connected with the hospital.

It seems to me it was a very interesting fact that this was said sixty-one years ago by an army surgeon whom I believe to be one of the really great figures of American medicine.

Concerning Interns and Internships*

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In the Boston medical schools, as elsewhere, there regularly develops at the end of the third year, or early in the fourth, an epidemic of worry over internships. While usually the epidemic has no serious results, yet, occasionally, excellent students become unnecessarily disturbed by it. This seems a pity because the clinical work of the fourth year should be especially useful; it should not be interrupted by extraneous factors.

The Massachusetts interns and internships have been studied variously. From two successive surveys it is apparent that our internships are regarded as useful and that our interns, in general, are promising young men. The better students select our better teaching hospitals in which to be trained; on the whole, the better the internship offered, the better is the scholastic record of the intern who is accepted; the weaker hospitals which offer the poorest training attract the poorest students. This, no doubt, is a general experience.

Not all of the best scholars in the Boston schools care to remain in Massachusetts for their internships; in fact, some of our very best students prefer to go to other parts of the country for intern training. To make up for their loss, we attract graduates from other than Boston schools. On the whole, this also is a satisfactory arrangement. The men from outside schools, as a rule, are acceptable and stimulating scholars so that to have them wish to come to Massachusetts is a feather in our cap. As Dr. O. W. Holmes might say, we like good young doctors to feel if they can not fix it so as to be born here, they can come and live here.

A curious situation has arisen in connection with the intern problem, however, which is not so pleasant. One way of describing it is that hospitals naturally wish to attract to themselves the best possible interns they can get, and in order to do this most advantageously they appear to vie with one another in making their appointments at earlier dates than do their competitors.

For many years the Boston teaching hospitals have held examinations for interns on or about January first. A number of hospitals outside of Boston were written to for information concerning the date at which their 1939 appointments will be made to include candidates who will not graduate until June. Twenty-three hospitals have replied to this letter. Each of these hospitals can safely be guaranteed to any student as offering as good an internship as is obtainable in the United States. In most instances, they represent teaching hospitals in various

*Read at the Forty-ninth Annual Meeting of the Association of American Medical Colleges held in Syracuse, New York, October 24-26, 1938.

parts of the country which are in the habit of drawing away from Massachusetts fourth year student material of highest calibre. These hospitals make their appointments as early as November (2 hospitals), early in December (5 hospitals), and mostly during the Christmas holidays, a time which appears to be convenient for personal interviews between hospital and applicant to take place.

Thirty-nine hospitals in New England approved for intern training, but not strictly allied with medical schools, also replied to the letter. In this group, the answers were particularly interesting. One hospital is so forehanded as to make intern appointments in July for men who will not graduate until the following June. Another makes its appointments in September, one in October, one in November, many in December, and only a comparative handful after the first of the year. One excellent hospital wrote, very honestly, "In years past we have always made our appointments on or about February 15, but from our experience of the past year we found that many of the applicants for our internships cancelled their applications and some even cancelled their appointments which they had received because they had accepted appointments in hospitals elsewhere. It is our feeling that we should make our appointments this year not later than January 1. We wish that there might be some way that the intern committees serving the various hospitals could come to a definite understanding as to the date of appointment for interns."

The experience of the Boston schools is not unique. Many medical schools in other parts of the country wish that such ardent competition for interns as now exists could be done away with and that intern committees serving the various hospitals could come to a definite understanding as to a uniform date of appointment for interns.

Nor is the problem a new one. Thirty years ago a representative hospital, like the Massachusetts General Hospital, held its examination for interns in the early spring. Little by little, however, as the importance of internships was universally acknowledged and as the competition for interns grew keener, the date of examination for the Massachusetts General Hospital was pushed back closer to the beginning of the fourth year in order to keep in step with what other hospitals were doing. This method of approach to the situation was not effectual. All that happened was that other hospitals pushed their examinations even further ahead.

In 1926, the problem had achieved national importance. The Bulletin of the Association of American Medical Colleges[1] in its January, 1927, number, published these remarks:

"Time of Appointment of Interns.—The following letter from the Dean of Columbia University College of Physicians and Surgeons, New York, is self-explanatory. It will, no doubt, be a stimulus to other schools and hospitals to do likewise and thus help to solve what has proven to be a most vexatious matter in the past. Courses have been disrupted by the scramble for hospital positions; the students' work has suffered, and hospitals have not profited. Here is the first step to overcome many annoyances.

Dr. Fred C. Zapffe, Executive Secretary,
Association of American Medical Colleges,
3431 Lexington Street,
Chicago, Ill.

Dear Dr. Zapffe:

"For a number of years attempts have been made to defer the appointment of hospital interns until towards the close of the fourth year. The Association of American Medical Colleges, the Council on Medical Education of the American Medical Association and the American Hospital Association, have all passed resolutions favoring this idea. The difficulty has been in persuading someone to take the lead.

"This is to inform you that it has been decided to defer the appointment of interns at the Presbyterian Hospital in the City of New York until some time in April.

"It is earnestly hoped that other hospitals and schools will be able to act in a similar manner.

Cordially yours,

"December 2, 1926. William Darrach, M.D., Dean."

That the American Hospital Association[2] was interested in the matter is also evident, because at the 1926 meeting the Committee on Interns recommended:

"That the American Hospital Association request its members not to appoint interns or to hold examinations for interns until the student has completed three and one-half years of medical study; preferably between March 15 and April 1."

For some unknown reason the Presbyterian Hospital soon abandoned its stand and this resolution of the American Hospital Association was never carried into effect with any decisiveness. Bargaining for interns continued.

Finally, medical students themselves began to complain of what was happening. In 1937, Victor Richards[3], a junior in the Stanford University School of Medicine, published an interesting paper entitled, "The Internship," giving an undergradute's viewpoint on the matter. Some of this paper is worth quoting.

"In the first days of October, a notice from the Dean's office, posted conspicuously on the bulletin board, advises the students to begin looking for an internship . . . All kinds of schemes are resorted to in order to find a job. There is considerable pulling of strings by those who know how and where to pull; and, strange as it may seem, those students who are lowest in the class ranking very frequently get the fattest jobs . . . It would undoubtedly be desirable to enlist more fully the cooperation of such an agency as the Association of American Medical Colleges, which is already doing good work, by means of its Intern Placement Bureau, to assist students worthy scholastically to secure internships in approved hospitals. This would help to remove the distress and humiliation of the present somewhat unethical struggle for internships."

Nearly a year ago the third year classes of the Harvard Medical School and of Tufts Medical College wrote letters to the Boston Committee suggesting, in effect, that it would be highly desirable from these students' viewpoint if some arrangement could be established by which intern appointments could be made in various hospitals at about the same time, thus to "avoid the complications and

1. Bull. Ass'n Amer. M. Coll., 2:68, 1927.
2. Bull. Ass'n Amer. M. Coll., 2:74, 1927.
3. Richards, V.; The Internship, Bull. Ass'n Amer. M. Coll., 12:227, 1937.

duplications heretofore experienced." As one student put it, there are very few men who have the conceit to pass up a very good appointment in one locality offered early simply on the gamble of competing for a somewhat more desirable appointment made later in another locality.

Thus, it is apparent that medical schools, hospitals and students all sense and dislike the present confusion and feeling of competition regarding intern appointments. Some sort of a reform is badly needed.

As to what can be done and how to do it is more difficult to say. Boston has made efforts, sporadically, to have its examinations for interns in the teaching hospitals come at the same time as do the examinations for interns in other teaching centers. This effort has never met with any whole-hearted support, chiefly because each hospital is apt to desire a personal interview with prospective interns and it is practically impossible to work out a reasonable time schedule that will suit everyone. The Intern Placement Bureau of the Association of American Medical Colleges is playing a helpful part in the matter, and as the Bureau develops its scope, it may become even more useful. Fundamentally, however, in Boston we feel that since hospitals, students and medical schools recognize the evils of the present way of doing things, the reason that these evils have not been corrected must depend on lack of positive leadership and a lack of any well defined, broad policy.

Perhaps, if the Association of American Medical Colleges took the lead, to use Dr. Darrach's words, this peculiar tangle might be unwound. If the schools which are members of the Association would agree to give out no information regarding any student's abilities to any hospital before a certain date to be agreed on, part of the more ruthless competitive methods now in use for attracting interns might be done away with. For it is improbable that any reputable institution would appoint men as interns without receiving some official information of their scholastic record and their capabilities as undergraduate students. And if the hospitals would live up to an agreement not to examine intern candidates or to make intern appointments before a date to be set by the American Hospital Association, the matter would be still further clarified. Finally, it might be possible for the teaching hospitals—which according to the Massachusetts analysis offer the best internships—to combine examinations in some manner and to interchange candidates, thus doing away with unnecessary examinations and traveling on the part of students. If a plan such as this could be developed, it would be possible actually to carry out what Columbia University and the American Hospital Association so bravely attempted in 1926. To do this would help to solve the baffling problem of how to make the period of intern training fit into American medical education most pertinently.

DISCUSSION—PAPER OF DR. FITZ

DR. J. A. CURRAN (Long Island College of Medicine): Most of us, I know, are very much interested in the problem which Dr. Fitz has outlined. I have been particularly interested in comparing the dates of the Boston teaching hospital examinations with those in New York City. Last year, twenty of our students applied for internship in the teaching hospitals in Boston. When the first of January arrived and the Boston examinations were held, all of these students had been placed in New York City or in the neighborhood. They did not dare wait for the Boston examinations.

In contrast, a considerable number of the Boston graduates come down to New York annually, take the internship examinations during November or December and then have the Boston hospital appointments to fall back on.

During the survey of New York hospitals which Dr. Rappleye mentioned, covering the last five years, we learned that 115 men from Boston University, Harvard and Tufts were in New York hospitals; 68 were interns. In comparison, over a period of years, we discovered that only 4 per cent of the graduates of the five medical schools in New York had secured internships in any of the hospitals in all New England.

I thought it would be interesting to check up on the date of examinations in New York. This year we have completed a register of internships available, supplemental to that published each year by the American Medical Association. Of the sixty-odd hospitals offering internships, we found that one had an examination listed in February, one in January, twenty-eight at Christmas time, seven in early December, eleven in November, and one in October and, finally, eleven at a date not specified. In most cases that meant that they would appoint at any time.

Curiously enough, the trend toward earlier examinations is more strongly seen in New York among the teaching hospitals. Since last year, seven hospitals have held their examinations earlier and of these, four were teaching institutions.

Impressions I have received from my experience, favor a growing conviction that from the point of view of the medical colleges, the problem is essentially a regional one. For example, 75 per cent of the graduates of the five schools in New York City find internships within the city, and if adjoining areas are included, it runs up to 90 per cent, so our problem is primarily one of learning what the hospitals are doing in our own district.

From the point of view of the hospitals in New York City, the situation is quite different. Of their 1,135 interns, 49 per cent came from our own schools; about 40 per cent from other American colleges; and 11 per cent from Canada and Europe.

Another interesting contrast between the situation in New York and other centers, particularly in the West, is that with us the placement of interns is a matter of free competition where the individual makes his own application and takes as many competitive examinations as he can. In certain schools in the Middle West, however, practically the entire senior class is placed by designating its members direct to ceertain hospitals. It would seem that the dean is taking a great deal of responsibility in making such placements, but reports received are that this plan works out very well.

It seems, therefore, that the essential factor in good internship placement is, first of all, a knowledge on the part of the dean and the faculty of each fourth year student's capabilities and possibilities, and a corresponding knowledge of the hospitals to which these men go.

In New York this problem has been a very difficult one because of the large number of hospitals. In order to solve that problem, during the past five years a cooperating group has been formed including the medical schools, the New York Academy of Medicine, the Greater New York Hospital Association, the Advisory Council on Municipal

Hospitals, the Coordinating Council of the Five County Medical Societies, and the United Hospital Fund, to carry on a more or less continuous survey of the various hospitals.

Since the termination of the grant received from the Commonwealth Fund, the work is being financed by the medical schools. We have a half-time secretary whose office is located at the headquarters of the United Hospital Fund in the center of the city. We have a survey committee with representatives of the five schools on it, and last year we were able to carry out a follow-up survey of all the hospitals we had visited in our first period of study. I think there is unanimous testimony among all of us that it is tremendously valuable to have the opportunity to visit these hospitals and thus see the situation at first hand. In times gone by, it has been necessary to advise students largely on hearsay evidence, not having the advantage of personal contact.

Our method of study has been for each surveyor to visit approximately twelve hospitals a year or one a month. We are able to get together once a month and compare notes and thus have a fairly accurate idea of what transpires. The situation may change rapidly even during a single year.

We are also getting out a printed bulletin on the internships available with information supplemental to that published by the American Medical Association.

One important discovery last year was a serious difficulty as to conflict of dates of examination. Four of the municipal hospitals held their examinations at the same hour on the same day and practically all of the students applying to one applied to the other three. As a consequence, one of the outlying hospitals did not have enough candidates present to fill their quota.

In conclusion, I agree with Dr. Fitz that the Association of American Medical Colleges should take the lead in working out a better arrangement. We have a great deal of work to do to achieve this end. I think it would be very desirable, as Dr. Fitz intimates, to have a better arrangement for exchange of graduates between various leading medical centers. This can be attained through better understanding and cooperation between the deans and faculty of the medical schools and the hospitals in their own area, and then interchange of information with similar groups in other areas.

Dr. Philip A. Shaffer (Washington University): We have been attempting for several years to take some steps in this important movement and I should like to ask Dr. Walton, my colleague, who has had charge of our efforts to tell you very briefly what we are trying to do.

Dr. Franklin E. Walton (Washington University): The method of handling senior students of Washington University regarding their internships, until three years ago, was as follows:

About this time of the year the members of the senior class would gather about the Dean and other members of the faculty individually and collectively and ask for letters of recommendation to various hospitals. This was a time consuming procedure as far as the heads of the departments were concerned and there was not only complete absence of definite supervision but absence of supervision regarding the choice of the hospitals to which the young men applied.

Some of our interns have a very definite idea as to where they want to go and we have found from experience that some of their ideas are not particularly good in the light of our experience. I might say that my chief function is not to aid them in obtaining an internship but to aid them in obtaining the best possible internship.

Although many hospitals have the approbation of the Council on Medical Education and are approved for internships, we are of the opinion that many of them probably come under the minimal standard. We are very jealous of our graduates and like to get them internships in the best possible hospitals. I devote my afternoons to the students

and to letter writing and attempt to guide them toward the best available institutions. The yardstick used is based on our experience with various institutions and is definitely colored by experiences various members of our hospital staff and faculty have had with these respective institutions.

I know all of our senior students personally. I am a rather inquisitive sort of person and I do know a lot about them. To the best of my knowledge, none of them has been crucified, although there is one man who, perhaps, should have been handled in this fashion.

During the last three years, this particular method of handling the intern situation has been carried out and I think that Dean Shaffer will testify that it has taken a tremendous load off his hands. I know that the other members of our faculty have not had this plethora of letter writing which they had formerly and I am convinced that by using this particular system we have been able to get the men into better institutions. Only two letters go out to the hospitals regarding the students. One comes from my office, which is an expression of my opinion of the man, and the second letter bears the Dean's signature with the academic standing of the individual. One thing that concerns us a great deal is the effect of the academic rating of our men on various intern committees of hospitals. For example, in this particular year, there is less than two points difference between our No. 2 man and our No. 22 man. There is only three points difference between our No. 31 and our No. 67 men and we believe it is rather difficult to say that this man stands, for example, 66th in a group of 67 when there is a request for a numerical standing of the individual and yet realize that he is only three points away from the upper third of the class.

We graduated a class of ninety-seven last year. Several hundred intern appointments are available in the city of St. Louis but we do not feel that there are ninety-seven good intern appointments available in the city of St. Louis. Our present resident in surgery for example is a Cornell man. We have had many men recently from Cornell. We would like to see an exchange set up, if possible, between other institutions comparable to Barnes Hospital which would provide better internships for our graduates.

Dr. R. C. Buerki (Commission on Graduate Medical Education): Speaking for the University of Wisconsin, we follow the Washington University plan of attempting to place every man in the class. We discuss with the student the internships open to him and, taking his desires into consideration, we recommend him for the internship we feel he is best able to fill. This plan has been in operation for the past ten years and the hospitals that cooperate with us accept the man we recommend to them. Each year one or two of the seniors want to place themselves and we allow them to do so, though we make it clear that we must be released of all responsibility. Each year there is less desire on the part of the student to place himself and more enthusiasm for our method of placement.

Twenty-two internships are available in the University Hospital. Ten of these are on an exchange basis with other medical schools. Normally, we take the better men in the class and exchange them with the other schools. The poorest two or three men of the senior class are the only University of Wisconsin men who are given appointments in our own hospital. We feel that if we have any question as to their ability, we should be responsible for giving them a longer period of intensive training. In the past, it has been gratifying to see the way these men improve under close supervision and we have no reason to regret making this opportunity available to the relatively poor student. The other appointments to the University Hospital intern staff are made in the usual manner, but in no instance do we accept more than two men from any one school.

Dr. R. B. Allen (Wayne University): On the purely mechanical side of the problem, this Association might be interested to know that an internship appointment plan whereby

Wayne University College of Medicine and hospitals in the Detroit area have agreed on specific dates and procedure is working satisfactorily. In brief, the student makes application in November to hospitals of his choice and files a sealed list of such choices arranged in the order of his preference in the Dean's office. On or about December 1st, the Dean meets with hospital representatives, compares student and hospital preferences and the assignments are made accordingly. The plan leaves the initiative where it rightly belongs, in the hands of the students and the hospitals.

DR. A. W. STEARNS (Tufts College): I am curious to know how that rogues' gallery turned out. Are they as bad as their class rating would seem to indicate, and is there any encouragement we can get as to what will become of those lower four or five men in the class?

DR. CURRIER MCEWEN (New York University): There is a rather common belief among medical students that they should be granted internships purely on the basis of scholarship. I think that many students, when the most desirable appointments go to other candidates who had poorer scholastic records than they, become disgruntled and erroneously assume that the other students must have received their appointments because of wire pulling and other unfair means. Probably, there are hospitals in which this is true but I am confident that the correct explanation in the majority of instances is that the board selecting the interns does not consider pure scholarship the most important attribute. In talking to our own students regarding internships we explain that of the five chief qualifiations that most hospitals desire in their interns scholarship is least important. Obviously, the student who offers both high scholarship and these other qualifications is the most desirable man.

For the New York University service at Bellevue Hospital we choose a certain number of the interns from our own graduating class. The selections are made from the point of view of taking those students who will make the best all around interns and who we believe are most promising as potential future members of the attending staff. I was interested to learn that over a ten year period the interns selected from among our own students came from the various scholastic quarters of the class as follows: Highest quarter, 29 per cent; second quarter, 24 per cent; third quarter, 26 per cent; fourth quarter, 21 per cent. There is no question that, on the average, the students in the highest quarter make better interns than those in the lowest quarter, but when it comes to choosing those students with the best qualifications for internships, we have found them divided almost evenly among the quarters. This, of course, presupposes that any student who is capable of graduating has the necessary mental ability for the internship.

We have a plan for advising the students and sending letters of recommendation for them very similar to that described by Dr. Walton. Dr. Mulholland, when he writes his official letters to the various hospitals, gives not only the student's scholastic rating but also our opinion of the desirability of that student as an intern.

DR. W. S. LEATHERS (Vanderbilt University): I have given a good deal of thought to the relief of the dean from responsibilities associated with the intern problem. For a number of years I endeavored to place the students in the fourth year class and it involved a very considerable amount of work, including many conferences, frequenty two or more with one student. I found that after a time the students were attempting to classify themselves in relation to what they thought of the hospitals. This was based on the assumption that their scholastic record would not permit them to apply to certain hospitals but they could very well make application to others with a chance of being appointed. They would ask in this connection, "What is my scholastic standing and in what hospital can I be reasonably sure to get an internship?" I endeavored to advise them largely from this point of view.

It was, therefore, evident that the students were endeavoring to establish a correlation between what they thought was their scholastic standing and the hospital to which they should apply for an internship. Obviously, this was a good basis of approach to the problem and usually an appointment was obtained if this principle was observed. I am of the opinion that this is the manner in which it will generally work out because of the differences in hospitals. If the hospitals are made more uniform as to facilities for internship, or, as Doctor Rappleye said, the educational requirements become desirable for these appointments, then the students who may be in the lower third of the class scholastically will receive the kind of teaching opportunity which they should have and which they particularly need.

The teaching hospitals endeavor to select the best men, of course, and this is usually done by the heads of the departments in the institutions concerned. They carry on correspondence and determine what men they should appoint. It is in large measure a personal matter and not related to any particular system or plan which an institution may adopt for securing intern appointments for their students.

Not infrequently, for example, a student will ask about an internship in a university hospital. We will say, for the sake of discussion, it is a straight internship in pediatrics. I usually advise him to see the professor of pediatrics because he is in touch with the pediatricians in these hospitals and they will correspond with him before the appointment is made regardless of other communications that may be conveyed to the pediatrician in the institution where the student wishes to obtain an appointment. Of course, the dean is expected to give a letter and does so. Not infrequently a student is appointed under such circumstances. Moreover, the student is told that he will be appointed by correspondence weeks before the decisions are made in said institution by the intern committee. In such instances, the formal decision is made in December, or even later, but the student is given assurance that he will get the appointment. It is, therefore, clear that these appointments are largely based on personal relationships between members of the faculties of the institutions concerned. In most of the university hospitals there are usually straight or mixed internships.

The points of view expressed above do not apply generally to other types of hospitals. A number of the municipal hospitals are outstanding and many of them require the entire scholastic record, that is for the preceding three years, and it means, of course, which I think is somewhat fallacious, that the man with the highest scholastic record is given the appointment. Obviously, there are other qualifications which should be weighed carefully.

At Vanderbilt, I recently appointed a committee consisting of three members of the faculty which serves as an advisory committee to the dean on securing internships for the graduating class. We meet the fourth year students the first week of the session, and either I or some member of the advisory committee will spend about an hour discussing types of internships, indicating the criteria which a student might well consider, as, for example, the number of autopsies performed during the year in a hospital, the interest in teaching, the house staff, et cetera. The class is divided into four groups and one group is assigned to each of the members of the advisory committee. This means that one-fourth of the class is assigned to each member. This procedure enables the students to confer with some one reasonably early in the session and determine to what hospital or hospitals application should be made in securing an internship. Many of the men talk with the dean and, as a rule, all of them either indicate their purpose or come in for a conference. They are advised at the outset to talk with any member of the faculty they wish because I do not think that this should be a closed affair. There is considerable importance attached to the personal relation between students and members of the faculty in securing internships. I do not think that the plan should be too

rigid but there should be a flexible procedure. For example, it is not infrequently true that the professor of surgery or of obstetrics and gynecology may be the very person who would be of most service to the student in applying for an internship in some hospital. In other words, there is a personal element in this matter which should not be disregarded or overlooked.

Lastly, and fundamentally, as I understand it, the student is primarily responsible for securing the internship, not the medical faculty. I think it is his business to study the matter and determine the kind of hospital in which he wishes to obtain an internship. Then the members of the faculty should be sympathetic and responsive in assisting the student in any possible way. After all, the student must determine the hospital in which he wishes to intern and he should be permitted to make the decision without undue persuasion. This does not preclude a frank discussion for the purpose of rendering any assistance which the student may seek. Personally, I would hesitate to say to a student, "You should take this internship," unless he has been given the opportunity to consider the matter properly. I prefer for him to say, "I want an internship in a particular hospital." It seems to me that these points constitute, in a way, the philosophy in which students should proceed in securing internship appointments.

DR. EBEN J. CAREY (Marquette University): In regard to the internship which has been conducted since 1918 at Marquette, we have had a compulsory fifth year and some of the problems that we have heard discussed here, especially in the excellent paper which Dr. Fitz has read, we have not experienced. We look upon the placement of these interns as a mutual responsibility both on the part of the fourth-year man and on the part of the dean's office.

We have a group of hospitals and in each one of those hospitals where a student is allowed to carry on his fifth year, we feel that the first responsibility of the school is to see whether that man will be benefited, that is, that the intern will receive a real education during that period. It is the duty of the staff to appoint a supervisor of the student. This supervisor is an extramural member of the faculty during the year of his service. We receive quarterly reports on the progress of the work that the student is conducting during the internship period.

The problem of obtaining internships early is really a benefit to the student, because once his intern problem is settled, then the remainder of the fourth year may be conducted with more equanimity and peace of mind. If you wait until January, February, March, or even April, the same problems are confronting the men that confront them at the beginning of the year in October, and we, as administrators, know, within at least 95 per cent of the members of the class, what their scholarship is at the beginning of the year just as well as at the end of the senior year.

The time of selection of the internship is a local problem. I believe, however, that an early appointment for the fifth year is conducive to good scholarship and good work and peace of mind on the part of the student. The student, however, should have the freedom of action in the selection of the hospital in which he will serve the internship.

DR. ALAN M. CHESNEY (Johns Hopkins University): It seems to me that we should face the fact that the problem of intern selection is not unlike that of admission to medical schools, except that in the case of admission, the schools are in one position and in the matter of intern selection their position is reversed. If we are going to ask the hospitals to set up some arrangement so that they will not take interns before a given date, are we prepared to do the same thing? I think that the arts colleges would have the right to make the same demand on us which we make on the hospitals.

I must say that I am rather of Dr. Leathers' kidney, and feel that the responsibility rests primarily on the student. I wonder when we are going to cut the leading strings

and let these young people really grow up. There is danger in trying to shepherd them too far along in their medical career. Certainly, they have to learn to take some responsibility for themselves at some time.

Another point I wish to make is that while there is competition, naturally, on the part of hospitals for good interns, so is there competition on the part of schools of medicine for good students. We know perfectly well that that is so. We have had the experience at our own school of selecting first rate men, even sons of alumni and first rate fellows, and then having them, after they have been notified of their acceptance, but before they have signed up, go to other schools because they have financial opportunities at those other schools which we cannot give them. I do not think that that is a bad thing. It is our hard luck that we can not meet that competition, but I am not going to feel badly and I do not think our group will feel badly because another institution is in such a favorable position that it can offer these attractions. I think it is up to us to try to place ourselves in the same position, too, and not ask them to come down to our level of competition.

Dr. Willard C. Rappleye (Columbia University): Someone has made the ingenious suggestion that we should spend the summer between the third and fourth years in appointing the interns so that the students in the fourth year will learn some medicine. There is a great deal of confusion at present during the fourth year. I am not at all sure that we can not appoint interns before the fourth year as well as we can in October, November or December. I think we know just as much about the students at that time as we do two months later. It might be possible that that would be a useful function of the interim between the third and fourth years, to get our intern situation cleared up. That is not my own suggestion alone.

Dr. Torald Sollmann (Western Reserve University): The allotment of internships in the autumn preceding the senior year would be a handicap for the students whose first assignments for clinical clerkship happen to be in a service other than that for which they intend to apply.

Dr. E. M. MacEwen (State University of Iowa): The suggestion that interns should be selected during the summer months merits serious consideration. Most interns are selected on the basis of records established during three years in medicine. We know just as much about them in July as in the following October. There would be two distinct advantages in this plan so far as most midwestern students are concerned: (1) It would be possible for them to visit distant centers and meet the intern committees. Distance makes this impossible during the regular session. (2) All our students could devote the entire senior year to the study of medicine, instead, as at present, one semester of hunting for an internship, and one in acquiring additional training for medicine.

Dr. Rappleye: Some men feel that there is no relationship between the quality of the intern training and the grades obtained in the medical course. We had an interesting experience several years ago on the Commission on Medical Education when we studied in considerable detail and carefully the life experience, training, and other factors of 1,600 men who were regarded by their colleges as being successful in practice. Their scholastic records among the schools still in existence, showed almost equal distribution between the upper, middle and lower thirds of their respective classes. There was little relationship in regard to success in practice and the scholastic record of the student.

The factors governing success in practice are not all related to intellectual attainment. The fact remains that there is very little relationship between success in practice and the scholastic record, and I am rather dubious as to how close the relationship is between successful internship and grades in the college itself. We have our own experiences in

our own group of several very high grade students who were very poor interns. One department solved the problem of relative ranking by giving all the students A's, and then there is no debate as to how individual students stand. The factor of personality is a large one in determining the success or failure of an intern.

DR. C. SIDNEY BURWELL (Harvard University): We have attempted to determine whether there is correlation between success in school and success as interns. This was done by asking the hospitals to grade the interns as to whether they were average, superior or inferior. There were extreme groups also receiving fine grades in all. The results were fairly clear in showing that there was a general, though rather rough, parallelism between standing in class and success as interns, with certain very notable exceptions. Two men who had stood very high in their classes had been rated by the hospitals as definitely inferior interns. When those two men, whom I select as the outstanding examples, were looked up and their records in school studied carefully, we found that they were both men with definite personality difficulties. I think that some of the exceptions which would indicate that there is not a correlation are found to be based on that particular factor.

DR. E. STANLEY RYERSON (University of Toronto): One point of view with reference to advising students regarding internships has not been mentioned, and that is, what is the student's own idea as to what he intends to do in the future. In relationship to that, how should he be advised? There are two large groups of graduates, those going into specialties and those going into general practice. Many who are going into general practice select the hospital for internship in relationship to where they intend to practice. That aspect should be kept in mind in advising a student where he should serve his internship.

Syracuse University College of Medicine* Historical Note

H. G. Weiskotten
Dean Syracuse University College of Medicine
Syracuse, New York

At the outset, let me state that Syracuse University is a private corporation and as such receives no federal, state or city support.

Syracuse University College of Medicine had its actual beginning as the Geneva Medical College in Geneva, New York, in 1834. Earlier history establishes connections both with Rutgers Medical College established in 1792 and with Fairfield Medical School.

In 1872, the college was transferred to Syracuse and became a college of the new Syracuse University which had just been established in Syracuse. The reasons offered for the transfer were:

1. The need for more adequate clinical facilities than were available in the city of Geneva.
2. Syracuse University offered promise as an educational institution; and
3. There was considerable interest on the part of the local profession in the establishment of a medical school in connection with the University.

From the very beginning of its connection with the University, our college offered a three year graded curriculum which was made compulsory in 1875.

The clinical teaching was done in three of our local hospitals with which the college established informal affiliations, and later in the Syracuse Free Dispensary which was a separate institution conducted by the Syracuse Free Dispensary Society.

In 1912, the University erected a building adjoining the medical college in which to house the clinics of the Syracuse Free Dispensary Society and entered into a formal agreement with the Society in connection with which the medical college contributed to the support of the Dispensary and agreed to furnish its medical staff.

In 1915, the University assumed ownership of one of the three general hospitals which had been used for teaching purposes.

Thus, although the medical college and the Dispensary were in close geographic relationship, the University Hospital and other two affiliated hospitals were located in three widely separated sections of the city, all a considerable distance from the college.

Hence, in 1922, the College of Medicine developed visions of the possible development of a so-called medical center adjoining the University campus.

In 1923, another of the affiliated hospitals decided to build on a new loca-

*Read at the Forty-Ninth Annual Meeting of the Association of American Medical Colleges held in Syracuse, New York, October 24-26, 1938.

tion. The women of the board of this hospital caught the vision of the center and decided to build on property directly adjoining the University property which the Board of Trustees then set aside for the future development of the medical college. The new Syracuse Memorial Hospital was opened in 1926.

In 1927, the City of Syracuse decided to build a new communicable disease hospital and was persuaded to build on property immediately adjoining the site for the proposed new medical college. At this time the city entered into a formal agreement with the University whereby the University would assume full responsibility for the appointment of the medical and nursing staff of this hospital, and the city would reimburse the University for the cost of the nursing service. This hospital was opened in 1928.

Two years later, the state decided to build a regional psychopathic hospital in Syracuse and was persuaded to locate it on this same site. This hospital was opened in 1930.

Two years ago, when it appeared that private funds were scarce and government funds plentiful and readily available, the University borrowed from the federal government $825,000 and proceded to build a new medical college building on the campus site where the three new hospitals were located.

To summarize, our set-up in Syracuse involves a center including: (1) A new medical college building; (2) Syracuse Memorial Hospital, a 250 bed general hospital in which gynecology, obstetrics and pediatrics are taught; (3) Syracuse Psychopathic Hospital, a 60 bed State owned hospital, the Director of which is mutually selected by the State Department of Mental Hygiene and the College of Medicine; (4) a City Communicable Disease Hospital of 80 beds.

In addition, we have, located one city block from the Center, a University owned hospital of 210 beds where medicine and surgery are taught.

The Syracuse Free Dispensary, with an average daily attendance of more than 300, is located about one mile from the Center, near the business section of the city. This institution is conducted as a co-operative enterprise by the Syracuse Free Dispensary Society, the City Department of Health and the University, with the City Welfare Department, certain private agencies and the Community Chest contributing to its support.

We also use St. Joseph's Hospital, conducted by the Franciscan Order, for certain clinics and clerkships in medicine and surgery. This is a 250 bed hospital and is located in the north section of the city about two miles distant from the Center.

We have numerous community relationships, one of which involves the location of the City Department of Health Laboratories in our college department of bacteriology.

Our development is by no means complete or even satisfactory. We need additional buildings: (1) to house the offices and laboratories of our clinical departments and (2) to fit or merge into our development the present University Hospital and the Dispensary.

A Method of Examination in the History of Medicine

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It is heartening to those who are interested in cultural medicine, more particularly in the history of medicine, to note the renaissance of interest in the subject. All but seven of the 84 schools in membership in the Association of American Medical Colleges include medical history in their curricula, and in most of them it is on the required list. In nearly all recently published medical textbooks each chapter is prefaced by an historical note, and there are at least five American journals which are devoted entirely to the history of medicine. The American Association of the History of Medicine has taken on new life, and local societies are being organized throughout the country.

The manner in which medical history is presented in the various medical colleges must, of necessity, depend on many factors: the time allotted to it; the extent of the library and print collection; the facilities of the department of illustration for the preparation of slides and films; and, to no slight extent, the training, ability and enthusiasm of the individual on whose shoulders rests the responsibility of presenting the subject. Courses in medical history vary from the mere presentation of a few didactic lectures to such elaborate programs as the seminars and research studies developed by Dr. Henry E. Sigerist and his associates at Johns Hopkins University. In any event, the important desideratum in the teaching of the history of medicine is to present the subject interestingly—not merely to present statements of isolated facts, but rather to picture medicine in its relation to the cultural development of a given civilization.

Speaking before the American College of Physicians a few years ago, Sir Andrew McPhail introduced a delightful biographical sketch of Thomas Sydenham with the remark, "Gentlemen, I regret that I must bother you with a date." In those few words he epitomized the spirit of the intelligent presentation of an historical dissertation. Only to the professional historian are specific dates important. To the casual student, dates and isolated facts are soon relegated to the limbo of forgotten unessentials. The orthodox factual examination, therefore, really defeats its own ends. With this in mind, I have introduced in the School of Medicine of Indiana University a method of examination in the history of medicine which I believe is original, and which has served its purpose well.

About November first, the class of approximately 100 students is divided into groups of five. The students form their own groups, thus insuring a congenial and agreeable atmosphere in which to work. To each of these groups is assigned a topic for a major thesis which is to be completed by the first

Tuesday of the following March. The topics have varied from year to year; during the past term those assigned were the history and development of our knowledge of the more important diseases and disease groups, for example, the pneumonias, diseases of the lungs other than pneumonia, diseases of the gastro-intestinal tract other than cancer, syphilis, etc. The paper must be developed by the cooperative study of the five members of the group in the same way that co-authors work together to prepare a technical paper for publication. It must cover from thirty to forty-five pages of double-spaced typescript and particular emphasis is laid on construction, continuity, grammar, spelling and punctuation. There must be a complete bibliography, and the students understand that any suspicious bibliography will be investigated.

In addition to this group paper, each student is required to prepare an individual paper on any subject of his own choosing which has a bearing on the history of medicine. From these two papers an average is struck, and the final grade is determined. The major thesis gives the student an opportunity to learn the use of the library, to prepare a paper in such a manner as would be required for publication, to learn the proper preparation of a bibliography and, more particularly, to learn how to work with others in the preparation of scientific articles. The supplemental individual paper reveals by the very choice of subject, the intelligence of the student and his interest in the history of medicine. The student who writes a two-page biography of Benjamin Rush which is obviously plagarized from Kelly and Burrage or Garrison, is at once evaluated at his real worth.

This year the best group paper was "A Review of Our Knowledge of Syphilis," and it was of such excellence that it was published in full (eleven printed pages) in the Journal of the Indiana State Medical Association. The cooperation of The Journal in publishing the outstanding papers has been a great stimulus to the students and is greatly appreciated by our department of the University. Three of the authors of this group paper wrote individual essays which were worthy of publication. It has been observed that, almost without exception, the students who write the best papers in the history of medicine are the same individuals who get the best grades in other subjects.

The method of examination outlined has been used for seven years, and we believe it to be quite satisfactory to the students and to the interested faculty members. Comments and criticisms of the method from those who are interested in teaching the history of medicine will be appreciated.

From: American Public Health Association
To: Association of American Medical Colleges

Leaders in medical education are in general agreement that the principles of preventive medicine should be included as an essential element of medical teaching.

The first university department of preventive medicine was established by Dr. M. J. Rosenau at Harvard, in 1909. In the thirty years that have intervened, the contact and scope of the courses, and the methods for integration of the teaching with that of other university departments, have been developed to a high point of effectiveness. Preventive medicine and public health have become an essential discipline in the medical school; today, unless a medical college is presenting this subject adequately to its students, it is not fulfilling its obligation to its graduates, nor to the communities they will serve when they go out to practice medicine.

When an important principle of this sort has become established as a part of the thinking of all who are engaged in medical teaching, the obvious next step would seem to be to carry it into effect completely and without loss of time.

Thus, it is with astonishment and sincere regret that we discover that many medical schools of the United States are not meeting their obligations in the teaching of preventive medicine and public health.

This fact is abruptly brought to our attention by the leading article in the *Journal of the American Medical Association,* April 23, 1938, p. 1321, by Dr. J. G. FitzGerald, entitled "Undergraduate Instruction in Preventive Medicine."

Dr. FitzGerald points out the fact that even after thirty years convincing evidence of the value of instruction in preventive medicine as an essential part of the medical curriculum, nevertheless, in 1938, only eighteen medical schools in the United States possess full time university departments of preventive medicine and public health. More important still is the fact that the names of two or three of the leading medical schools in the United States are conspicuously absent from Dr. FitzGerald's list.

While it is true that, in twenty-five additional schools, the teaching of preventive medicine is combined with, or included in, the teaching of bacteriology, the incompleteness and disadvantages of this limited type of instruction are fully brought out in Dr. FitzGerald's discussion.

The Committee on Professional Education of the American Public Health Association transmits this memorandum to the Association of American Medical Colleges to call attention to the continued need for improved facilities in the majority of medical schools in the instruction of students in preventive medicine and public health. It seems futile to make plans for the incorporation of the practicing physician in a nation-wide program for the prevention of disease and promotion of public health when such a large number of our medical students are receiving, while in medical school, inadequate instruction and preparation in the basic principles of this great and growing field of medicine.

Respectfully submitted,

Committee on Professional Education
American Public Health Association
(Signed) W. S. Leathers, Chairman

Ralph E. Tarbett	John E. Gordon
Henry F. Vaughn	Pearl McIver
Reginald M. Atwater	G. H. Ramsey
Eugene L. Bishop	Wilson G. Smiley
Allen W. Freeman	John Sundwall

W. C. Sheppard, Consultant

Teaching

A teacher's great who can explain
Big things with little words.
No profit comes, just stress and strain,
When one is thumpt with words.

The one who feels he has to use
A mass of mountain terms
To tell his tale, or to enthuse,
Helps not, but does confuse.

Confusion is a mental state,
Truth fogged in ignorance,
We can avoid or dissipate
If we but facts relate.

Mere good intention can't explain
What still remains unknown
Such subjects are for research men
Until some facts are shown.

Intention, oft a naive thing,
Has paved Inferno's floor
And may lead quite unknowingly
Straight to Inferno's door.

Things that are known are crystal clear,
Can plainly be portrayed.
Good teaching is to show the facts
And how progress is made.

Had this been done, big words in reams
Need never have been coined,
Pretentious ghosts that only can
Confuse the student mind.

A play of words cannot replace
The facts that must abound
Before the student can progress
On solid holy ground.

H. A.

JOURNAL
OF THE
Association *of* American Medical Colleges

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The Journal

The Journal of the Association of American Medical Colleges is published to serve approximately 16,000 medical teachers in the medical colleges of the United States and 900 in the medical colleges of the Dominion of Canada. It brings each year more than fifty original papers on medical education and teaching and numerous reports on studies related to various phases of medical education which are a part of the activities of the Association of American Medical Colleges. Therefore, the claim that this is the only publication which serves all medical educators and teachers is fully justified.

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Freshman Class: 1938-1939

According to reports received from the medical colleges of the United States, 5,720 freshmen enrolled last fall. Fifty-one are reported as being repeaters. As a rule, medical colleges do not report repeaters on enrolment blanks because they were reported the preceding year. Each year there are about 200 repeaters; therefore, adding 150 students to those reported, the present freshman class would number 5,870, about 125 less than the final number for the 1937 freshman class. It is very probable that at least 50 students withdrew during the first few days of the present session which reduces the figure to 5,800. In a few schools, students are enrolled at the beginning of every quarter which will add about 50 students, bringing the total to about 5,850. The exact number will not be known until sometime during the Fall when all colleges have reported on student accomplishment.

The number of women students in the first year remains about the same as in previous years, 234.

The degree of preparation of these students is interesting although it conforms with data of the past ten years; viz., the students are coming with more college work. Whether the stimulus is the desire for more knowledge and better preparation or a belief that assurance of acceptance is greater, cannot be stated. Nevertheless, students are remaining in college longer than in previous years. Of all the freshmen, only 4 per cent had less than three years of college work; 28.8 per cent had between three and four years of college; 6.9 per cent had more than four years but did not receive a degree; 60.3 per cent held a bachelor's degree: A.B.—34.7 per cent; B.S.—25.6 per cent. One hundred and twenty-four (124) students had more than one degree; i.e., A.B., A.M.; A.B., B.S.; A.B., A.M., Ph.D., etc. There are 14 Ph.Ds. in the class, more than in any previous year. The one lone odd degree is that of "master mariner."

It is evident that each year a greater number of students come to medical college with a bachelor's degree and that the arts degree is preferred to the science degree. A few students hold both degrees; some hold the bachelor of arts and the master of science degrees and vice versa; some hold both bachelor's degrees and a master degree. The records show that the accomplishment of the multiple degree men is, on the whole, superior to that of the single degree men.

New York State Education Department Ruling on Extramural Medical Schools of Great Britain

The Associate Commissioner for Higher Education of the New York State Education Department has made the following ruling relative to the registration by the State of New York of the extramural schools in Great Britain:

"I am directing that such registrations cease at once for all students hereafter admitted to these institutions and that this Department no longer issue qualifying certificates to American students seeking admission to these schools. In accordance with our customary practice it seems desirable to continue to recognize those already having received our qualifying certificate and already engaged in study in these schools."

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First Honors to Georgia

Which medical college was the first to lengthen the medical course from four months to six months? Dr. Cecilia C. Mettler, of the department of anatomy of the University of Georgia School of Medicine, claims (Phi Chi Quart., January, 1937) that this honor must be conferred on Georgia. In 1832, the Medical College of Georgia offered the six months course. "'Thus upon Georgia and not upon Pennsylvania should the laurels for the changing of the four month course be bestowed," says Dr. Mettler.

She also reprints a letter, dated May, 1835, signed by "L. D. Ford, Dean," which was sent to the then existing medical colleges (15, plus Georgia) suggesting a "convention of representatives" from the medical colleges:

"Thoroughly convinced that the profession, whose respectability it is alike our duty and inclination to advance, requires that the medical colleges of the United States, now, take some decided action upon this subject of Medical Education, we beg leave respectfully, to solicit your cooperation in effecting a Convention of Representatives from the medical colleges, to be held in Washington, for the purpose of establishing an uniform system of requisitions for the degree of Doctor of Medicine; of regulating the courses of professional study; the extent of previous education; and counselling generally about the means of rendering our institutions most successful in diffusing the benefits of Medical Education.

Nothing came of this effort because of apparent lack of interest on the part of the fifteen medical colleges. Therefore, Georgia "was compelled, by competition, as it were" to reduce the scholastic term to four months. Dr. Mettler's article is very interesting and informative, giving proof that medical education was uppermost in the minds of men whose names are now a part of medical history: Eve, Antony, Dugas, Ford, Campbell and many others.

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Graduating Class: 1938

An analysis of the graduating class of 1938 with respect to the time when these individuals began the study of medicine reveals some very interesting data. Only 84.4 per cent of 5,186 graduates (those who completed the senior year) began their studies in 1934; 1 per cent began in 1935, completing their work in three calendar years; 14.6 per cent entered as freshmen prior to 1934. Astonishing as it may seem matriculation of this group dates back as far as 1920. Among these 760 individuals we find ten who matriculated prior to 1929: 1920 (1); 1924 (2); 1925 (1); 1927 (2); 1928 (2). Thirteen individuals matriculated in 1929; 12 in 1930; 41 in 1931; 126 in 1932 and 560 in 1933.

The earlier registrants in this group dropped out for a while, some because of failures, some not. The greater number were repeaters, some having repeated one year three times; others twice and some once. Some failed several years and repeated every failed year.

These figures show that it is impossible to predict the number of graduates for any year. The entering class of 1934, the largest on record, numbered

6,683. Only 66.5 per cent (4,445) completed the senior year in 1938. The remainder, 2,238 either have dropped out completely or they are still in college, having dropped back by reason of failure of one or more years. Less than one-half of this group (1,408) is not in college now, having quit after the first failure in promotion.

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National Library of Peiping

Ever since Japan's military occupation of Peiping, all national institutions of learning in that historical city have been unable to function. In view of this situation, an office has been established at Kunming, Yunnan. Books and journals are collected to meet the intellectual needs of Chinese scholars. The need of scientific literature by Chinese scholars is especially urgent at the present time. In order to keep them informed as to the recent development in science, a special reprint collection would be of great value to investigators engaged in scientific research.

Donations of books and periodicals of all kinds, old or new, especially standard works in various fields, from American and Canadian authors may be sent care of the International Exchange Service, Smithsonian Institution, Washington, D.C., which makes monthly shipment to China.

As a great deal of scientific work is being carried on in China in spite of the war, contributions will render a great service to the present and future generations of intellectual workers in this country.

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Wanted: Pathologist

A state university medical school is seeking an instructor in pathology; salary, $150 per month. A capable person who proves his ability will be in line for reappointment as instructor or, probably, assistant professor at the beginning of the 1939 session in September.

The work will consist of helping with the necropsy service, with laboratory teaching of systemic pathology and gynecologic pathology and with the preparation of specimens for the clinical and pathological conferences.

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The Curriculum

At a meeting of the Executive Council of the Association of American Medical Colleges and the Council on Medical Education and Hospitals of the American Medical Association one of the topics of discussion was the curriculum. It is well known that time is the most important factor in the construction of a curriculum. It is unlikely that another year can be added, but it is possible (1) to lengthen the year to nine, ten or even eleven months and (2) to save time by eliminating unessential technics — unessential so far as the practice of medicine is concerned — by stressing a general medical education and giving less time to specialized studies. The latter point is well worth consideration. In a few medical colleges there is still too much time being given to the specialties. Since it is an accepted principle that special practice demands special preparation of a sort as laid down by the various specialty examining boards, there is no reason why the teaching of specialties should be stressed in the undergraduate medical curriculum. Only that part of a specialty which bears directly on a general medical practice should be presented.

Lengthening the year received considerable support. In fact, a few colleges have taken that step in the final clinical year in which, however, only a part of the class can participate. At any rate, this point is something to think about as a way out for the demand for more time.

College News

University of Minnesota
Neuropsychiatric Fellowships at the University Hospital

The clinical experience for the training of fellows is gained in the University Hospital which is a general hospital of approximately 450 beds. The neuropsychiatric division utilizes two floors of one wing. One is an "open" floor of 20 beds used chiefly for neurological cases; the other is a locked floor of 37 beds for patients requiring special precautions or special supervision. The latter is a completely equipped psychiatric unit with provisions for occupational therapy, hydrotherapy and the care of suicidal or disturbed patients. The neuropsychiatric outpatient clinic handles approximately 1250 new cases annually. The division of nervous and mental diseases has its own laboratories of neuropathology and electrophysiology. Space for animal experimentation is also available. The University Library is located within a five-minute walking distance of the Hospital. Its collection of neuropsychiatric source material is one of the most extensive in the United States.

The full-time staff of the foregoing services consists of the following: One full professor; two assistant professors, one of whom spends about half of his time in the field of neuropathology; one instructor; one assistant; a clinical psychologist who holds the rank of assistant professor in the department of psychology. There is also one halftime instructor. Funds will probably be added to the salary of the half time instructor this year to make one more full time instructorship. Several part time men who are locally in practice assist with the teaching of undergraduate students.

In addition to working in the unit for adult neuropsychiatry, the fellows rotate for experience into the new clinic for Child Psychiatry which is attached jointly to the division of nervous and mental diseases and the department of pediatrics. This project is under the direction of a full professor, with the assistance of an instrutor, both of whom are full time members of the staff.

Adequate nursing and social service personnel are attached to both the adult and the children's clinic.

Excellent rapport exists between the division of nervous and mental diseases and the division of neurosurgery, division of internal medicine, the departments of anatomy, physiology, pathology, psychology, and other basic disciplines.

The neurologic service is very active. All types of neurologic material pass through it. Though there is an ample supply of chronic cases which enter for study, the majority of cases offer interesting diagnostic and therapeutic problems. For instance, the incidence of brain tumor is relatively high for a service of this capacity.

The psychiatric unit for adults operates under a Minnesota statute which allows the staff complete freedom in the acceptance or rejection of applications for the admission of patients to the service. It is thus not a clearing house for the state hospital system. Less than 20 per cent are committed to institutions. Selection of patients is made predominantly with reference to teaching or research value or because of special points of clinical interest that may be presented in the patient; all patients, except in emergencies, are seen by one of the staff before admission to the inpatient service. Thus the service handles a wide variety of selected diagnostic problems of special value to the worker who desires broad experience. There is no prescribed duration of stay for the patients. Cases are occasionally studied and treated over several months of time; others are admitted for a few days for diagnosis and report back to courts or agencies. The average stay is about 34 days. The majority of patients enter the service voluntarily though a

rather large minority are admitted on a holding order from one of the courts of the State for treatment or for report back to the court. A few private patients of the staff are cared for on the service but 90-95 per cent of the patients are indigent or part pay.

There are two fellowships in the field of neuropsychiatry in the University Hospital. These individuals are appointed with annual renewal over a period of three years. They register in the Graduate School for work leading to the Degree of Master of Science or Doctor of Philosophy in Neuropsychiatry. A half to two-thirds of their time is devoted to clinical work on inpatients where each has an assignment to 27 or 28 beds, about 18 of which are in the psychiatric detention unit and the others on the neurological service. In addition, they work either two or three mornings weekly in the outpatient department of the University Hospital, being assigned to the neuropsychiatric clinic. The salary is $600 for each of the first two years and $900 for the third.

Licensure to practice in Minnesota is required of Fellows by the Minnesota State Board of Medical Examiners before they may accept clinical responsibilities with patients. Inquiry should be directed to Dr. J. C. McKinley, Secretary, Minnesota State Board of Examiners in the Basic Sciences, 126 Millard Hall, University of Minnesota, Minneapolis, and Dr. J. F. DuBois, secretary, Minnesota State Board of Medical Examiners, 230 Lowry Medical Arts Building, St. Paul.

THE DEGREE OF DOCTOR OF PHILOSOPHY IN NEUROPSYCHIATRY

The first year is primarily a year of general orientation. The Fellows are introduced to the detailed methods of clinical investigation of both neurological and psychiatric cases. All of their clinical work is supervised by one or another of the full-time staff. The Fellows rotate from one service to the other every six months so as to gain rounded experience through work under the various members of the staff. Once weekly they make rounds on their own service with the director. Twice weekly they have morning rounds with their immediate service superior, the other mornings, except for a quick ward-walk, are spent in the outpatient department. A seminar is held bi-monthly on the reports of research in progress by the members of the staff; if the research is not sufficiently advanced to warrant a report, the person responsible for a particular meeting reviews some topic of interest from the current literature or presents clinical pathological reports on cases that have come to autopsy from the service. The Fellows are expected and encouraged to play a prominent role in case presentations, in discussions, and in the conference reports.

Ordinarily, the fellowships begin July 1. The summer quarter of the first year usually has no definite assignments outside of work in the clinic which serves for orientation in the technique of the field. In the fall quarter, the first-year Fellow will audit the course in neuro-anatomy in the Department of Anatomy. During the fall, winter, and spring quarters of the whole fellowship one of the senior staff meets the Fellows on alternate weeks for an hour to an hour and a half, and holds informal pedagogical discussions of the clinical and theoretical aspects of neuropsychiatry, including psychopathology and psychometry. During at least one year the Fellows spend two or three hours on each of two afternoons weekly in working up brains, spinal cords, and peripheral nerves of patients who have died on the service and come to autopsy, performing part of the histological staining techniques personally, in inspecting material in the histopathological collection, and in discussing with the neuropathologist the ramifications of the neuropathological field. During the first year the senior members of the staff create opportunities with the individual Fellows for discussions of their possible research interests. By the end of the first year the attempt is made to launch the Fellow upon a research problem which appears promising as the basis

for his graduate thesis, and regarding which he has expressed curiosity or pleasurable anticipation.

The second year is devoted to an extension of clinical experience, to class work in the basic sciences, and orientation work towards the thesis; the Fellow has the option of registering in courses basic to the field of neurology and psychiatry regardless of the department in which he elects them in the University. In the past these courses have been as diverse as organic chemistry, psychology, physiological chemistry, anatomy, pathology, statistics, and modern languages. These elections are made with the approval of the major advisor; they are not necessarily limited to the second year but the Fellow's free time is best suited to taking these electives at this time. A demonstrated reading knowledge of French and German is required by the end of the second year of candidates for the Ph.D. degree. During the second year the graduate student must complete certain requirements in a minor field, that is, in one of the pre-clinical topics, satisfying the men in that field under whom the work is elected as to the amount and quality of work done. At the end of the second year the candidate for the Doctor of Philosophy Degree takes his preliminary examination. This is written over a period of from four to eight hours. The questions are compiled by the various members of the department and this examination must be passed before the candidate is eligible to enter the oral examination. In addition, then, an oral examination is given by members of the staff of the Graduate School, extending over a period of not more than three hours. The oral examination covers the field of the major subject, namely neuropsychiatry, and of the minor the student has elected, and may include any material fundamental to the specialty. Failure in the examination results either in the discontinuance of the incumbent from his fellowship, or in his re-examination some months later, in special cases, in the discretion of the examining committee.

During the third year the Fellow continues with his clinical work, is allowed to answer consultations that are not beyond his ability on other services in the hospital, but at least half of his time is devoted to finishing the research for his thesis and writing up the thesis under the guidance of his major advisor. On completion and approval of the thesis the candidate becomes eligible for the final examination which is oral. This extends over a three-hour period and is limited largely to a discussion of the candidate's thesis material which he must defend, and to a discussion of the history of medicine and particularly the history of the neuropsychiatric field.

Successful completion of the final examination makes the individual eligible for attendance at commencement where he may receive his Ph.D. Degree.

Throughout the whole fellowship the graduate student assists in preparing material for undergraduate medical teaching, presents cases to the medical students for discussions between them and one of the senior members of the staff, helps guide the senior medical students during their clerkship on neuropsychiatry, and participates in some of the bedside teaching. During the third year the Fellow is usually given a few large class assignments in the medical school or before the students of nursing so that he gains some facility, through actual practice, in clinic presentations and in lecturing before sizeable audiences.

THE DEGREE OF MASTER OF SCIENCE IN NEUROPSYCHIATRY

Exceptionally, the staff of the division of Nervous and Mental Diseases will recommend the candidacy of specially prepared graduate students for the Master's Degree on the basis of two years of graduate work; ordinarily three years will be required.

The course is similar to the foregoing except that less emphasis is placed upon research for the thesis, the candidate need not demonstrate his aptitude as an independent investigator as is the case for the Ph.D. and consequently he will have more time available for clinical

training. He is subjected only to a single written and oral examination which is less searching than those for the Ph.D. Degree. Ordinarily the candidate for the Ph.D. Degree will be attempting to prepare himself for a career in clinical teaching or research; the one for the M.S. Degree for a more strictly clinical future.

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University of California
Medical School

Dr. George Tucker, Lecturer in Legal Medicine, gave a series of lectures on the legal aspects of the practice of Medicine. These included the following titles: "The Legal Aspects of the Practice of Medicine," "Medical Records and their Legal Effect," "Medical Evidence in the Courts," "Malpractice Liabilities and Defenses and Other Civil Actions Against Physicians," "The Medico-legal Aspects of Workmen's Compensation," and "Medico-legal Problems in Cases Involving Insurance." These talks were a part of a required course in legal medicine for fourth year students but were attended also by many members of the faculty and resident staff.

Dr. James M. D. Olmsted, Professor of Physiology, has just returned from Europe where he visited France, England, Italy and Switzerland, attending the XVIth International Physiological Congress in Zurich. Subsequently, he was engaged in library and field research in France on the life of Francois Magendie, nineteenth century neurologist, whose biography is now in preparation.

Dr. Sherburne F. Cook, who is holding a Guggenheim Fellowship, is spending some time in Mexico where he is studying the nutritional, social and epidemiological influences of the European civilizations upon the birth rate, death rate and morbidity of the aborigine population.

Dr. Stacy R. Mettier, Associate Professor of Medicine, is spending a semi-sabbatical leave of absence in England. He is working in the laboratories of Dr. L. J. Witts, Professor of Medicine at the University of London, and is doing research on the subject of hematology. Dr. Mettier plans also to visit clinics in Switzerland and in Sweden.

As a part of the week's celebration commemorating the seventy-first charter anniversary of the University of California, the Medical School will hold its semi-annual alumni day clinics on March 22, 1939. The program will include demonstration clinics by the Divisions of Medicine, Surgery and Pediatrics under the direction of Dr. W. J. Kerr, Professor of Medicine, Dr. H. C. Naffziger, Professor of Surgery, and Dr. F. S. Smyth, Professor of Pediatrics, and members of their staffs. There will also be operative clinics by Dr. H. C. Naffziger and the surgical staff and by Dr. F. W. Lynch, Professor of Obstetrics and Gynecology, and members of his staff. In the afternoon, the visitors, which will include alumni from all parts of California and other western states as well as other physicians, will be taken on a tour of the Medical Center, fourth year students acting as guides.

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Louisiana State University
School of Medicine

Lectures on medical economics will be given to fourth year students, beginning January 27th, immediately on the conclusion of the lectures in medical jurisprudence now under way, which also were given in their present form for the first time this year.

The first lecture, dealing with life insurance, will be given by Mr. Frank Limont, superintendent of agents of the Pan-American Life Insurance Company. Other lectures will cover such subjects as systematic savings; bookkeeping and record and file systems; real estate as an investment; and the income and statistical distribution of physicians. These lectures will be given by Mr. Fred Ellsworth, vice-president of the Hibernia National Bank; Mr. J. Harry Rees, assistant efficiency man in the Remington Rand Company; Mr. Richard Foster, Director of the Depart-

ment of Public Welfare of the City of New Orleans, and Mr. J. E. Blum, Sr., president of the Louisiana Real Estate Board.

A final lecture will be given on hospital records by Mrs. Elizabeth Greenwald, record librarian of the Louisiana Charity Hospital at New Orleans. This will deal with the actual keeping of records from the standpoint of the physician, and will emphasize their importance in legal medicine as well as their importance as sources of clinical data.

The lectures on medical economics are given for two reasons. The first is the notorious inability of medical men to safeguard their own financial interests. The second is an endeavor to link up the future physician's personal finances with the present widespread discussions of so-called socialized medicine, in the problems of which the physician's personal financial state is one of the outstanding considerations.

A division of bronchoscopy and esophagoscopy, to be headed by Dr. George J. Taquino, has been organized. The staff of the division will consist of members of the department of surgery and the division of otorhinolaryngology.

This year for the first time a series of lectures dealing with medical writing and the use of the library will be given to first year students. The six lectures on the use of the library will be given by Mr. W. Dostic Postell, Medical Librarian, and the other six by Miss Elizabeth M. McFetridge, Medical Editor of the School.

The course in medical writing, which is a sort of orientation course was instituted after it became clear that many students fail or do less than satisfactory work because they are inadequately trained in such fundamental matters as the taking of notes and the making of outlines, or are deficient in English composition and vocabulary. These deficiencies are particularly evident in quizzes and examinations, when quick, organized thought and conciseness of expression are essential.

The course begins with an analysis of study habits, and continues with lectures based on the particular deficiencies revealed by this survey. A later lecture deals with the principles of medical nomenclature, with special reference to etymology and correct usage. The final lecture, on the practical use of the library, is followed by the six lectures given by Mr. Postell.

The opening lecture of this second group concerns the historical development of medical libraries. Other lectures deal with the use of indices, the selection of references, and the most important periodic literature in various preclinical and clinical fields. Practical instruction is given in the library, where the students, in small groups, are shown the location of indices, journals, and texts and systems, and are required to demonstrate their knowledge of the theory set forth in the preceding lectures.

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Harvard Medical School

Dr. Soma Weiss, associate professor of medicine, Harvard University Medical School, Boston, and assistant director of the Thorndike Memorial Laboratory of Boston City Hospital, has been appointed physician-in-chief of Peter Bent Brigham Hospital to succeed Dr. Henry A. Christian. The appointment will be effective September 1. Dr. Weiss will become professor of medicine at the same time.

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University of Alabama School of Medicine

Dr. Emmett B Carmichael, professor of physiological chemistry was the principal speaker at the installation of the Mississippi Beta chapter of Alpha Epsilon Delta, national honorary premedical fraternity, at the University of Mississippi, on December 9, 1938, and of the Mississippi Gamma chapter at Mississippi State College on December 10. The addition of these chapters increased the chapter roll to twenty-four active chapters.

University of Mississippi
School of Medicine

Three thousand volumes of miscellaneous medical and surgical works have been added to the Rowland Medical Library during the past year, the first in a five year program to enlarge the library. In January the board of trustees voted to name the medical library in honor of Dr. Peter W. Rowland, professor of pharmacology at the school, in recognition of his voluntary services in securing books for the library. According to the first annual report, in addition to the acquisition of 3,000 volumes, contributions of $2,500 from medical alumni were received to purchase new books. A reprint file was also begun during the year. According to the report, a special appropriation of $3,000 in 1936 provided for new quarters including a reading room, two study rooms and the librarian's office. In the spring of 1937, Dr. Rowland volunteered his services and became field director of the library. It is hoped that in the remaining four years of the program a valuable collection will be assembled for the medical students and physicians in the state.

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Ohio State University
College of Medicine

Dedication of a new outpatient dispensary and contagious disease wing attached to the Starling-Loving University Hospital, Ohio State University College of Medicine, Columbus, was a feature of the annual clinics and homecoming November 19. The clinic will use four floors, and two floors will make up the unit for contagious diseases. One room is reserved for the respirator recently purchased with funds from the President's Birthday Ball.

The Annual Post-Collegiate Clinical Assembly to be held March 2, 3, and 4, 1939, at Columbus, Ohio. These sessions are open to *all physicians*. Direct invitations will be mailed, along with the program, to the 2700 graduates. The Medical College is now in its 105th year of continuous chartered existence and uninterrupted instruction and granting of degrees.

An innovation in this year's comprehensive program will be a series of problem clinics or round table discussions wherein any physician may mail in his questions on topics related to the fields designated in the program, which will appear in the February issue of the Ohio State Medical Journal. The leaders, who are authorities in their respective departments will lead the discussions.

A series of scientific papers will constitute the three-day program which starts on Thursday morning, March 2, with routine operative and medical clinics held at the various University Hospitals and outpatient department. Thursday afternoon will consist of a series of papers on related medical topics and the evening will be devoted to a report from each department as to the research carried on during the year.

Friday morning, March 3, 9:00 A. M., Hamilton Hall, Medical College Building, begins a series of symposiums wherein each speaker is allotted ten minutes to discuss a phase of a clinical topic. Three such series will run concurrently throughout the day giving recent advances on a wide variety of subjects.

Dr. Logan Clendening of Kansas City, Missouri, has been announced for the Alpha Omega Alpha Lecture on Friday evening, March 3, in University Chapel. He will speak on "The Doctor in Art, Literature and Music". Dr. Clendening is an outstanding scientist, lecturer and writer and is professor of medicine at the University of Kansas. He is author of "Modern Methods of Treatment", "The Human Body, "The Care and Feeding of Adults", and "Behind the Doctor".

The Saturday morning program has been scheduled for 10:00 in the Hall of Mirrors at the Deshler-Wallick Hotel. Three distinguished speakers will address the assembly. Dr. Lowell Erf, now a member of the hospital staff at the Rockefeller Institute will speak of

the experimental work of new drugs in the treatment of pneumonia and some of their toxic effects. Dr. Joseph A. Johnston, head of the Pediatric Department at Ford Hospital, will address the group on "Factors which Affect Growth". Dr. Virgil S. Counseller of the Mayo Clinic, Surgical Division, will give a paper on "Ovarian Neoplasms, Their Pathological and Surgical Significance".

Dr. Charles T. Atkinson, Middletown, Ohio, will preside at the luncheon, which will also honor such guests as Dr. Burrell Russell and Dr. C. J. Altmaier, physicians who are trustees of the University, and Dr. Gatewood of Chicago, who represents the Alumni Board of Visitors.

Further papers will be given on Saturday afternoon at St. Francis Hospital, a feature of which will be a paper by Dr. Jonathan Forman on the laying of the cornerstone of St. Francis Hospital and the Starling Medical College 90 years ago.

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University of Vermont
School of Medicine

Harold B. Pierce, Ph.D., professor of biochemistry, has been appointed head of the department of biochemistry and acting head of the department of pharmacology.

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University of Kansas

The Student Health Service at the University of Kansas has been expanded so as to make available weekly consultation periods with a psychiatrist. A member of the School of Medicine staff is on hand for consultation by any student.

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Western Reserve University
School of Medicine

Dr. T. Wingate Todd, Henry Willson Payne Professor of Anatomy and Director of the Hamann Museum of Comparative Anthropology and Anatomy died suddenly December 28, 1938, of coronary thrombosis.

Woman's Medical College
of Pennsylvania

The eighty-ninth anniversary of the founding of the college will be held Saturday, March 9th to 11th. A three day program of discussion on current medical problems confronting the general practitioner has been arranged. These discussions will be held in the morning of each day leaving the afternoons free for attendance on clinics. On the 11th, Founder's Day, alumnae are invited to be guests of the College at luncheon.

Dr. Mildred Schramm, Executive of the Donner International Cancer Foundation, addressed the students in December on "Problems of Cancer Research." Dr. Winifred B. Stewart, assistant clinical professor of neurology, has received appointment to the Psychopathic Division, Department of Neuropsychiatry of the Philadelphia General Hospital. Dr. Catharine Macfarlane, professor of gynecology, on November 29, 1938, addressed the Cancer Forum of the Lankenau Hospital Research Institute on "The Value of Periodic Pelvic Examinations."

A tuition scholarship of the value of $400 will become available to a student entering the first year of the medical course in September, 1939, and will be awarded on the basis of a competitive oral and written examination to be held at the College April 1, 1939.

The competition will be open only to students of superior premedical record who furnish convicing proof of need of this assistance. Candidates will be required to fill out a special form of application for admission to the examination.

For further details apply to: Assistant to the Dean, Woman's Medical College of Pennsylvania, East Falls, Philadelphia, Pa.

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Johns Hopkins University
School of Medicine

Dr. Thos. S. Cullen, professor of gynecology will retire having reached the age retirement period.

St. Louis University
School of Medicine

Dr. Henry Pinkerton, assistant professor of pathology at Harvard University, has been appointed professor of pathology and director of the department.

Dr. William Bauer, professor of dental pathology at the University of Innsbruck and Director of the Dental Clinic, has been appointed professor of dental pathology.

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University of Minnesota
Medical School

Dr. Arthur E. Hertzler of the Hertzler Clinic, Halstead, Kansas, and author of "The Horse and Buggy Doctor," will present the Sixth Annual Clarence E. Jackson Lecture on Thursday evening, March 16, 1939, in the Northrop Memorial Auditorium. The subject of Dr. Hertzler's address will be ""The Morphology of the Thyroid Gland."

Dr. Ludvig Hektoen, Executive Director of the National Advisory Cancer Council, U. S. Public Health Service, will present the Annual Minnesota Cancer Institute Lecture on April 17, 1939. Dr. Hektoen will speak on "Advances in the Knowledge and Control of Cancer."

On February 24, Dr. E. T. Bell, Professor and Head of the Department of Pathology, University of Minnesota, will deliver the Christian Fenger Lecture of the Chicago Pathological Society and Institute of Medicine at the Palmer House in Chicago. Dr. Bell will speak on the pathogenesis of glomerulonephritis, including lipoid nephrosis.

Dr. Irvine McQuarrie, Professor and Head of the Department of Pediatrics, University of Minnesota, will speak on "The Significance of Inorganic Metabolism in Diabetes" at a joint meeting of the Wayne County Medical Society and the Detroit Diabetes Association on February 13, in Detroit.

Dr. Owen H. Wangensteen, Professor and Head of the Department of Surgery, University of Minnesota, gave the fifteenth Lewis Linn McArthur Lecture of the Frank Billings Foundation on January 27th at the Institute of Medicine of Chicago. Dr. Wangensteen spoke on "The Genesis of Appendicitis in the Light of Functional Behavior of the Vermiform Appendix."

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Long Island College
of Medicine

Doctor Cassius Hinds Watson, Medical Director of the American Telephone and Telegraph Company, has been elected a member of the Board of Trustees of the Long Island College of Medicine. A graduate of the class of 1905, he succeeds the late Doctor Frederick Tilney, of the class of 1903, as Alumni Trustee. Dr. Watson, a recognized leader in industrial medicine, has been associated with the American Telephone and Telegraph Company since 1915, and to him is due a large share of the credit for the organization of its effective health service.

Doctor Fred L. Moore, on February 1, commenced his new duties as associate professor in the Department of Preventive Medicine and Community Health of the Long Island College of Medicine. A graduate of Dalhousie University School of Medicine in 1924, he attended courses for public health officers at Vanderbilt University, and in 1934 received a Certificate of Public Health from the School of Hygiene, Johns Hopkins University. During the past eleven years, Doctor Moore has served as Health Officer of Sullivan County, Tennessee, as well as City Health Officer of both Bristol and Kingsport, Tennessee.

The development of the work of the Department of Preventive Medicine and Community Health has been made possible by a three-year grant from the Commonwealth Fund, totaling $43,750.

General News

Harvard School of Public Health

A symposium on the Public Health Significance of the Virus and Rickettsial Diseases will be held at the Harvard School of Public Health, June 12-17, 1939.

The faculty offers a short course of lectures, clinics and demonstrations on the virus and rickettsial diseases, with special emphasis on their public health significance. Lectures on the etiology, epidemiology, and methods of control of these diseases, given by members of the faculties and by former students of the Harvard School of Public Health and of the Harvard Medical School, will occupy five mornings. Special clinics and demonstrations will be given each afternoon. In some instances these demonstrations will be continued through the week, so that all the members of the symposium can attend. On the last morning, a panel discussion will be held on the three main topics presented in the symposium.

The fee for the course will be $25.00, payable at any time up to June 12th. Enrollment, however, should be arranged before June 1st, as facilities for many of the clinics and demonstrations are limited. The lectures will be published later in a single volume, which will be sent to each person who has registered for the course.

Further information may be had by writing to the Secretary of the School of Public Health, 55 Shattuck Street, Boston, Massachusetts.

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The Commonwealth Fund

During the year 1938, the Commonwealth Fund appropriated $2,277,953.19 for philanthropic purposes. More than four-fifths of this amount was devoted to the promotion of physical and mental health, much the larger share going to medical education, medical research, public health, and community hospitals in rural areas. Nine hospitals are in operation; two are in process of erection. To promote public health, about $375,000 was spent.

The Fund awarded ten fellowships to junior instructors in medical schools, on nomination of their department chiefs, not only to give promising young men an opportunity for professional growth but to strengthen the teaching resources of the schools where they are at work.

Similar fellowships were given to four junior staff men interested in the teaching of pediatrics to enable them to study psychiatry as an aid to the better handling of children.

Other new awards of the year included subsidies to the departments of preventive medicine at New York University and the Long Island College of Medicine.

Grants to Tulane, Vanderbilt, and Tufts, also for the teaching of preventive medicine, were continued from previous years, together with a subsidy to the department of psychiatry at the University of Louisville. The Fund assisted in the postgraduate teaching of medicine at Harvard, Vanderbilt, Tulane, and the University of Minnesota, and offered fellowships to men in country practice in seven states.

Funds amounting to more than $345,000 were set aside for medical research at 15 different medical schools and hospitals.

In the field of heart and kidney disease grants were made to the University of Pennsylvania for the study of kidney function, to Johns Hopkins for the study of essential hypertension, to Western Reserve University for work on chronic nephritis and the causes of heart failure, and to Yale for a general investigation of the causes of circulatory disease. A study of arthritis at the Massachusetts General Hospital, Bos-

ton, and three studies of rheumatic fever were aided, together with three on problems of growth and development in childhood. New appropriations in the field of the acute communicable diseases included two to the University of Pennsylvania for the study of air-borne infections and the chemical structure of the streptococcus.

In support of rural public health service the Fund has been assisting in the development of county health departments since 1924, and both county and state health departments since 1930. Such assistance has been given particularly in Tennessee, Mississippi, and Massachusetts. Similar aid was given this year in two additional states, Oklahoma and Alabama. In Oklahoma funds were provided for the establishment of a state traveling unit to advise local health officers, and for the demonstration of good methods of county health work in Seminole County. In Alabama the Fund aided the state health department in building up a health district consisting of seven counties, as a means of strengthening local service in child care, the control of syphilis, preventive dentistry, sanitation and other major fields of public health activity. In Gibson County, Tennessee, and Pike County, Mississippi, health departments were enabled to make nurses available to assist doctors at childbirth.

* *

To Think Clearly
And to Act Wisely

St. John's College, Annapolis, Maryland, one year ago initiated a new plan of education which is based on "One Hundred Great Books." The aim is to give a young man a sound education and the capacity to think clearly and act wisely and to recover the great liberal tradition of Europe and America.

These aims are to be accomplished by the students reading the classics — the hundred "Great Books"—during a period of four years, with the assistance of four teaching devices, namely: reading and discussion of the books in seminars; formal lectures on special topics in the liberal arts; tutorial instruction in original languages, mathematics, and writing; and laboratory instruction in mathematics and measurement, in experimentation, and in the combination of scientific findings.

The Hundred Books are arranged in four groups, one for each college year. The first group ends with the Alexandrian period, the second closes with the Middle Ages, the third continues to the middle of the eighteenth century, and the fourth covers the contemporary period.

At the end of the final year of study occur the regular semester examinations and a final comprehensive written or oral examination in which the student must show: a knowledge of the contents of the required books of the course, competence in the liberal arts, a reading knowledge of at least two foreign languages, competence in mathematics through elementary calculus, and three hundred hours of laboratory science.

President Barr says: St. John's program is merely carrying out the terms of the eighteenth century charter of St. John's College and restoring discipline in the liberal arts and an acquaintance with an intellectual heritage in place of the vocational interests and cafeteria courses that clutter our liberal arts curricula today. (*J. Higher Educ., 10:24 (Jan.), 1939*).

* *

Definition of Education

Mr. A. Curtis Wilgus, of the department of History, George Washington University, feels that "we should bring our school system down to earth and that educational theorists should cease rushing in where angels fear to tread."

He defines education as follows: "Education is the process of acquiring reverence for accuracy and a respect for ideals," and adds "that mental cripples cannot climb the tree of knowledge without practical and personal assistance. With a modern Mark Hopkins opposite the student on the educational log, more effective preparation for meeting present-day educational needs will

result than from all the quaint quirks of a revived eighteenth-century pedagogical system as advocated and practiced on any American campus." (*J. Higher Educ., 10:29 (Jan.), 1939*).

General educators should give serious thought to these pronouncements. A return to so-called "old" or "decadent" educational methods may bring to medical colleges students who are possessed of the education and the culture which every physician must have if he is to be a real physician.

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American Congress on Obstetrics and Gynecology

The first American Congress on Obstetrics and Gynecology will be held in Cleveland, Ohio, September 11-15, 1939. This Congress is sponsored by the American Committee on Maternal Welfare, Inc., representing nineteen national and regional associations of obstetricians and gynecologists and three Federal Government Bureaus.

The fee for registration is $5. For further information, address the central office, 650 Rush Street, Chicago, Illinois.

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Personalizing and Humanizing Instruction

Rollins College, Winter Park, Florida, has embarked on an experiment in education which attempts to personalize and humanize education in order to prepare the student for the fullest measure of life.

The theory is held that a well-rounded and complete life is open only to those who, informed by a liberal culture, are freed from the prejudices of a partial knowledge. Students so trained bring to their vocations an intellectual capacity which is of greater value than specific techniques or skills and which enables them to face the problems of modern life honestly and courageously.

With this ideal in mind the college has substituted "learning for instruction" so far as possible in order "to encourage the intellectual curiosity and enthusiasm of the student, and to develop the individual to the limit of his capacity." Thus the "conference" or "work-shop" plan of student self-education is employed which brings the student and the teacher into closer contact through informal conferences, small discussion groups, and the like. The "lockstep" method of instruction has been abolished and "students are permitted to progress as rapidly as course requirements and their ability permit." Each student is an individual as long as he remains in college and the individual shares in his own education. "The requirements for graduation are also individualized. The Rollins degree is no longer evaluated in terms of courses, credits, hours, points, or terms of residence" but in mastery of fields of human knowledge. (*J. Higher Educ., 10:27 (Jan.), 1939*).

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Telluride Association

Telluride Association was founded and endowed in 1911 by the late L. L. Nunn. Its purpose, stated in the Preamble to its Constitution, is "to promote the highest well-being by broadening the field of knowledge and increasing the adoption as the rule of conduct of those truths from which flows individual freedom as the result of self-government in harmony with the Creator."

The Association attempts to realize this ideal purpose through the support of higher education and scholarly research, both in this country and abroad. Scholars study under the auspices of the Association at many universities, but the center of the educational activity of the Association is at the Telluride House on the campus of Cornell University. The Cornell Branch resembles in its organization and development the beginnings of some of the colleges at Oxford and Cambridge. The residents of the Branch include, in addition to the student-members of the Association, a few student-guests and a succession of mature scholars, usually university faculty men and foreign graduate students. All residents of the Cornell Branch re-

ceive their board and room, and about half of them receive in addition their tuition and fees. These men take their meals together and participate equally in all the duties and privileges implied by residence at the hostel. The purpose is to make of the Cornell Branch an educational, social, and cultural center where about thirty unusual men of diverse background and experience and professional interest may mutually benefit from the daily contacts of group life. These men have advantages that permit their fullest participation in the varied activities of a great university.

All affairs of the Association are administered democratically by the members, who are the trustees of the institution as well as its beneficiaries. They are personally and collectively responsible for investment of the endowment, admission and graduation of members, granting of scholarships, and for the administration of the properties of the Association. Policies are discussed, and the principal matters concerning the next academic year are decided at the annual mid-June Convention. The execution of this trusteeship is in itself an extensive training in affairs.

The experience of the Association antedates by thirty years its formal founding, and it was early decided that the maturity, the seriousness, and the sense of relative values so essential to effective education can best be achieved through pratical work and self-support. To be eligible for membership, a candidate must have supported himself for at least one year. The formal application for membership must be on file for one year, and the candidate must present to the annual Convention an essay on the general principles of democracy and government as well as a thesis on the purpose and plan of Telluride Association. The Convention considers the candidacies of men at any stage of their education from highschool onward. It gives occasional scholarship aid to men who do not seek membership as well as to promising candidates for membership. These grants are usually in the form of residence at the Cornell Branch, but without tuition and fees.

The Association naturally expects of the candidate a distinguished scholarly record. It is more interested, however, in his character and personality, in his practical experience and background, and in other qualities and capacities which give promise of future value to society in terms of enlightened, intelligent leadership. Only a small number of men can be admitted in any year, because the Association is advisedly kept small and compact, with emphasis upon quality rather than upon number. Candidates may enter any profession.

Requests for information concerning the Association and its work should be addressed to the Chancellor of Telluride Association, Ithaca, New York. The Chancellor also receives all applications for membership and for scholarships.

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Alpha Epsilon Delta

Alpha Epsilon Delta, national honorary pre-medical fraternity, announces the installation of the Utah Alpha Chapter at the Utah State Agricultural College on January 20th. The Wyoming Alpha Chapter was installed on January 21st. Dr. Charles F. Poe, grand president of the fraternity, was the installing officer for both chapters. The addition of these two chapters increased the chapter roll to twenty-six active chapters with a membership of 2,000.

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The Samuel D. Gross Prize
Fifteen Hundred Dollars

This prize is awarded every five years to the writer of the best original essay, not exceeding 150 printed pages, octavo, in length, illustrative of some subject in surgical pathology or surgical practice founded on original investigations, the candidates for the prize to be American citizens.

The essays, which must be written by a single author in the English language, should be sent to the "Trustees of the Samuel D. Gross Prize of the Philadel-

phia Academy of Surgery, care of the College of Physicians, 19 S. 22d St., Philadelphia," on or before January 1, 1940.

Each essay must be typewritten, distinguished by a motto, and accompanied by a sealed envelope bearing the same motto, containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay.

The Committee will return the unsuccessful essays if reclaimed by their respective writers, or their agents, within one year.

The Committee reserves the right to make no award if the essays submitted are not considered worthy of the prize.

Edward B. Hodge, M.D.
Charles F. Mitchell, M.D.
Calvin M. Smyth, Jr., M.D.,
Trustees.

◆ ◆

Graduate Fellowships in Obstetrics and Gynecology

The Bingham Associates Fund is offering fellowships in obstetrics and gynecology to practicing physicians of Maine, the work to be conducted under the supervision of the faculty of Tufts College Medical School. The facilities of the New England Medical Center, the Joseph H. Pratt Diagnostic Hospital, the Boston Dispensary and the Evangeline Booth Maternity Hospital, Boston, will be utilized. The fellowships are for one month each and are available to graduates of approved medical schools. Each fellowship carries an honorarium of $250. Rooms and meals are available to fellows at reduced rates in the medical center. Additional information may be obtained from Dr. Samuel Proger, 25 Bennet Street, Boston; Dr. Frederick R. Carter, Augusta, or Dr. Frederick T. Hill, the Professional Building, Waterville.

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Mead Johnson Award in Pediatrics

The committee on awards of the American Academy of Pediatrics announces rules and regulations governing the Mead Johnson Award for Research in Pediatrics, which was established at the annual meeting of the academy in 1938. Two awards will be given annually at the meetings of the academy, one of $500 and one of $300, for research work published during the preceding calendar year. The award is limited to workers in the United States and Canada and to investigators who have not been graduated more than fifteen years. Thus the award in 1939 will be given for research published during the period of Jan. 1 through Dec. 31, 1938, by a graduate of 1923 or later. Communications should be addressed to the chairman of the committee, Dr. Borden S. Veeder, 3720 Washington Boulevard, St. Louis, Mo.

Book News

Fundamentals of
Experimental Pharmacology

By Torald H. Sollmann, M.D., Professor of Pharmacology and Materia Medica, Western Reserve University, Cleveland, Ohio, and Paul J. Hanzlik, M.D., Professor of Pharmacology, Stanford University School of Medicine, San Francisco. 2nd Ed. J. W. Stacey. Inc., San Francisco. 1939. Price, $4.25.

An independent course of practical exercises divided into two parts, chemical pharmacology and experimental pharmacodynamics, brought up to date since the publication of the first edition ten years ago. Pertinent material from the new U. S. Pharmacopeia and the national Formulary has been included. May be used both for class work and demonstrations.

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Midwifery

By Ten Teachers under the direction of Clifford White, M.D., Obstetric Surgeon, University College Hospital, London, England. 6th Ed. William Wood & Company, Baltimore. 1938. Price, $6.

A thorough revision of the text with addition of many new illustrations and radiograms.

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Outline of Psychiatric
Case Study

By Paul W. Preu, M.D., Assistant Professor of Psychiatry and Mental Hygiene, Yale University School of Medicine. With foreword by Eugen Kahn, M.D. Paul B. Hoeber, Inc., Medical Book Department of Harper & Brothers, New York. 1939. Price, $1.85.

A new guide to psychiatric history-taking and case-study. By following this outline the examiner will find it easier to elicit *all* the information, in any given case, necessary for adequate psychiatric study. The material presented has been tested-in-use for several years and refined under stress of practical application, not only at the New Haven Clinic but also at other important centers.

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Everyday Surgery

By Lambert Rogers, F.R.C.S., Professor of Surgery, University of Wales, and A. L. D'Abreu, F.R.C.S., Senior Assistant Surgical Unit, Welsh National School of Medicine. With an Introduction by Professor G. Grey Turner, F.R.C.S. William Wood & Company, Baltimore. 1938. Price, $4.75.

Although many surgical entities are mentioned, only those which the scope of the general practitioner who has prepared himself in some measure to treat them are discussed, although it would seem rather briefly. The physician who would make use of this book must be rather well prepared to treat the conditions mentioned.

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Life's Beginning
On the Earth

By R. Beutner, M.D., Professor of Pharmacology, Hahnemann Medical College, Philadelphia. Williams & Wilkins Company, Baltimore. 1938. Price, $3.

The author gives scientific evidence for the gradual preparation of life. He presents in plain words and illustrations how science today understands single life phenomena and the working mechanisms of life. He approaches the subject by artificially imitating various phases of life, though not life itself. The book discusses: Vital Growth and Crystallisation—Life as Carbon's Outstanding Property—The Importance of Salt and Water for Life and Growth—and The Fundamentals of Motion.

Essentials of Modern Surgery

Edited by R. M. Handfield-Jones, F.R.C.S., Surgeon to Outpatients, St. Mary's Hospital, and A. E. Porritt, F.R.C.S., Assistant Director Surgical Unit St. Mary's Hospital, London. William Wood & Company, Baltimore. 1938. Price, $9.

Presents surgical teaching based on fundamental principles of anatomy, physiology and pathology. Intended for students but is rather large and cumbersome. Really another textbook of surgery.

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Biology for Pharmaceutical Students and Others

By S. Mangham, M.A., Professor of Botany, University College, Southampton, and A. R. Hockley, S.B., Lecturer in Zoology, University College, Southampton. William Wood & Company, Baltimore. 1938.

Designed for students of biology.

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The Abnormal on Obstetrics

By Sir Comyns Berkeley and Victor Bonney, M.D., Consulting Obstetric and Gynecologic Surgeons, Middlesex Hospital, and Douglas McLeod, F.R.C.S., Assistant Obstetric Surgeon, St. Mary's Hospital, London. William Wood & Company, Baltimore. 1938. Price, $6.

Essentially for the practitioner who wishes to qualify for one of the higher examinations in obstetrics.

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Textbook of Neuroanatomy and The Sense Organs

By O. Larsell, Ph.D., Professor of Anatomy, University of Oregon Medical School. D. Appleton-Century Company, New York. 1939. Price $6.

The material has been gathered from monographs, textbooks of anatomy and physiology and from journals. The arrangement and organization of the material is based on the author's experience as a teacher of first year medical students for whose use the book is intended. As an introduction to interpretation, a brief discussion of some lesions in various parts of the nervous system has been inserted at the end of a number of chapters. The purpose of the entire presentation is to aid the student to think as early as possible in terms of functional anatomy. The general treatment is by functional systems and considerable emphasis is placed on functional aspects of the various divisions of the nervous system. Considerable use is made of comparative anatomy to give the student a conception of the nervous system as a living mechanism. The book is well illustrated. Chapter end references of source and reading material are given.

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Treatment of Fractures

By Charles L. Scudder, Formerly Assistant Professor of Surgery, Harvard Medical School. 11th Ed. W. B. Saunders Company, Philadelphia. 1938. Price, $12.

This book is too well known to call for many words in commendation. It presents a full and complete exposition of the subject of fractures. Although somewhat bulky, every medical student will do well to provide himself with a copy to aid him in giving proper treatment of these very important clinical entities which he may be called on at any time to treat. He must know how to treat every type of fracture properly. This book will help him to do so.

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Manual of Fractures and Dislocations

By Barbara B. Stimson, M.D., Associate in Surgery, College of Physicians and Surgeons, Columbia University. Lea & Febiger, Philadelphia. 1939. Price, $2.75.

Every medical student should have a copy of this very useful manual. It covers the field of fractures and dislocations completely although concisely, in 200 pages, with 95 excellent line drawings, and presents all salient features of diagnosis and treatment. The price is within the reach of every student.